

3 1761 07827982 5



Digitized by the Internet Archive
in 2011 with funding from
University of Toronto

LIBRARY

OF

UNIVERSAL KNOWLEDGE.

A REPRINT

OF THE LAST (1880) EDINBURGH AND LONDON EDITION
OF CHAMBERS'S ENCYCLOPÆDIA,

With Copious Additions by American Editors.

NEW YORK:
AMERICAN BOOK EXCHANGE,
764 BROADWAY,
1881.

COPYRIGHT, 1880, BY
THE AMERICAN BOOK EXCHANGE.

AMERICAN ADDITIONS

TO THE

LIBRARY

OF

UNIVERSAL KNOWLEDGE.

VOLUME III.



AE
5
L52
Add.
v 3

AMERICAN ADDITIONS

TO

CHAMBERS'S ENCYCLOPÆDIA.

JAY, WILLIAM, LL.D., 1789-1858; b. New York; son of John Jay; distinguished by his philanthropic schemes, and devotion to temperance, antislavery, and anti-war.

He was educated for the legal profession, and was successively judge of the court of common pleas in New York, and first judge of Westchester co., N. Y., retaining the latter office during 22 years, being finally requested to resign on account of his antislavery opinions. In 1842 he interested himself in the American antislavery society, when the question arose in congress of restricting freedom of speech upon the subject of abolition, and published a work, *Inquiry into the Character of the American Colonization and Antislavery Societies*, in which he ably discussed the question. In 1843-44 he visited Europe, and proceeding to Egypt thoroughly investigated the question of Egyptian slavery. He was president of the Peace society for many years, and published *War and Peace—the Evils of the First and a Plan for Supporting the Last*. His largest work was *Life and Writings of John Jay*. He left \$1,000 by his will for the “promotion of the safety and comfort of fugitive slaves.” Died in Bedford, N. Y.

JAZYGES, one of the numerous tribes which, during the early Roman empire, were comprehensively named Sarmatians. They originally occupied the shores of the Black sea, and sea of Azov. The origin of the name Jazyges, as applied to one particular branch of this people, is to be found in the history of their division, in the time of the emperor Claudius, into three distinct parties, settling respectively on the Don, the Dniester, and the Danube. The last named craved the protection of Rome, and were called by them the Jazyges Metanastæ, or transplanted. At the invasion of the Magyars they became dispersed as a distinct people, but later on reappeared, and selecting a district of Hungary, established a colony under the name of Jazygea, which, in our own day, is under the administration of the Palatinate. Its capital is Jászberény, and it has an area of 400 sq. miles. Pop. '70, 215,526.

JEANNETTE EXPEDITION. See POLAR EXPEDITIONS.

JEANRON, PHILIPPE AUGUSTE; b. Paris, 1809; has distinguished himself as a painter and author. He was mainly self-educated, and first attracted attention by his “Little Patriots,” and “Twelve Episodes in a Proletarian Life,” which he painted at the suggestion of Ledru-Rollin. He had the direction of the national museums of France from 1848 to 1850, and was afterwards in charge of the museum of Marseilles. Of his publications the best are *Histoire de l'Ecole Française* and *De l'Art de la Peinture*.

JEBAİL, or **JUBEIL**, a t. in Syria, near Mt. Lebanon, 20 m. from Beyrout; pop., 600. It is said to be the site of the ancient city of Byblos (q.v.), and was captured by the crusaders during their wars, its harbor being then destroyed. In 1840, the English wrested it from Mehemet Ali.

JEBB, Sir JOSHUA, 1793-1863; was an eminent British officer, who first attracted attention when intrusted with the direction of a government inquiry and experiments to improve the condition of convicts in Australia. He managed the matter so ably that he was consulted as to the best remedy for the evils of the prevailing convict system, and in accordance with his views, the system of solitary confinement was established in England, and the great prison at Pentonville built after his designs. He was knighted for his services, and made inspector-general of prisons, devoting the remainder of his life to improving the penal laws and the discipline of jails.

JEDDO, or **JEDO**. See TOKIO.

JEFFERSON, a co. of n. Alabama, in the coal regions; 980 sq.m.; pop., 12,345. Surface, rough and hilly, but with productive valleys. The staple productions are, corn, cotton, and wool, and there are manufactures of iron. Co. seat, Elyton.

JEFFERSON, a co. in s.e. Arkansas, watered by the Arkansas river; 900 sq.m.; pop. '70, 15,733. It is fertile and well timbered, and produces corn and cotton. Co. seat, Pine Bluff.

JEFFERSON, a co. in Colorado, situated among the foot-hills of the Rocky mountains; 800 sq.m.; pop., 2,390. The land requires irrigation for farming purposes, but is excellent for grazing, and abounds in coal, iron, and fire-clay. It is traversed by the Colorado Central railroad. Co. seat, Golden.

JEFFERSON, a co. in Florida, stretching from the Georgia frontier to the gulf of Mexico; 470 sq.m.; pop. '80, 16,085. It is wooded, and the soil is easily cultivated and fertile. The staple products are cotton, sugar, rice, and fruit. Co. seat, Monticello.

JEFFERSON, a co. in e. Georgia, drained by the Ogeechee river; 634 sq.m.; pop. '80, 23,251. The surface is generally level, and the soil fertile. It is traversed by the Central railroad of Georgia. Co. seat, Louisville.

JEFFERSON, a co. in s. Illinois; 530 sq.m.; pop. 17,864. It is varied by prairie and woodland, and the soil is generally fertile; the productions being grain, tobacco, wool, and live-stock. This county is intersected by the St. Louis and South-eastern railroad. Co. seat, Mt. Vernon.

JEFFERSON, a co. in s.e. Indiana, having the Ohio river as its southern boundary; 362 sq.m.; pop. 29,741. The surface is varied in character, the soil generally fertile; staple products: cattle, grain, and wool. Co. seat, Madison.

JEFFERSON, a co. in s.e. Iowa; 432 sq.m.; pop. '80, 17,478; drained by Skunk river and Big Cedar creek. It has a very productive soil, and contains rich coal measures; the land is well timbered. Co. seat, Fairfield.

JEFFERSON, a co. in n.e. Kansas, having the Kansas river on the s.; 550 sq.m.; pop. 12,526. It comprises rich prairie land, much of it wooded, and with coal and limestone deposits. It is intersected by the Kansas Pacific, and Atchison, Topeka and Santa Fé railroads. Co. seat, Oskaloosa.

JEFFERSON, a co. in n. Kentucky; bordered on the w. and n.w. by the Ohio river; 600 sq.m.; pop. '80, 145,902. The surface is varied and the soil fertile, producing wheat, Indian corn, hay, oats, and sweet potatoes. There are extensive manufactures. Co. seat, Louisville.

JEFFERSON, a parish in s.e. Louisiana, between lake Pontchartrain and Barataria bay, intersected by the Mississippi river; 384 sq.m.; pop. '80, 12,166—7,302 colored. It has a level surface, frequently marshy, and containing numbers of lakes; the soil is productive, the chief yield being in Indian corn, cotton, rice, sugar-cane, and sweet potatoes. It is traversed by the New Orleans, Jackson and Great Northern, New Orleans, Mobile and Texas, and Louisiana and Texas railroads. Co. seat, Carrollton.

JEFFERSON, a co. in s.w. Mississippi, separated from Louisiana on the w. by the Mississippi river; 630 sq.m.; pop. '70, 13,848—10,633 colored. The e. portion is heavily wooded with pine, the soil being generally fertile, and producing cotton, Indian corn, and sweet potatoes. Co. seat, Fayette.

JEFFERSON, a co. in e. Missouri, bounded on the e. by the Mississippi river; 504 sq.m.; pop. 15,380. The soil varies, being fertile in places and barren elsewhere. It abounds in metals; lead, copper, and cobalt being found in considerable quantities. The staple products are grain, cotton, tobacco, and wool. Co. seat, Hillsborough.

JEFFERSON, a co. in s.w. Montana; 2,720 sq.m.; pop. '80, 2,464—52 Chinese. It contains rich farming and pasture land, and gold is found near the Missouri and Jefferson rivers. Co. seat, Radersburg.

JEFFERSON, a co. in s.e. Nebraska; 576 sq.m.; pop. '80, 2,440. The surface varies between level land and high rolling prairies; the soil is very fertile. This county is intersected by the Little Blue river, and traversed by the St. Joseph and Denver city railroad. Co. seat, Fairbury.

JEFFERSON, a co. in n. New York, having lake Ontario on the w. and the St. Lawrence river on the n.w., and watered by the Black river and other streams; 1868 sq.m.; pop. '80, 66,106. It is traversed by the Rome, Watertown and Ogdensburg, and the Utica and Black River railroads, the latter by a branch. In this county is Alexandria bay, which comprises a portion of the lake of the Thousand Islands, and is a favorite place of summer resort. The surface of Jefferson co. is very varied in character, showing extensive marsh lands in the s.w., and ridges and undulations along the shore of the St. Lawrence in the n.e., while from the shore of lake Ontario it is gradually elevated to a height of 1000 ft. or more. The soil is fertile and easily cultivated; in some portions iron, lead, and copper occur in quantities. The principal productions are hay, wheat, Indian corn, potatoes, flax, hops, and barley; large quantities of wool, butter, and cheese also are produced. There are more than 150,000 horses, cattle, sheep, and swine

in the county, and the manufactures are comprehensive and important. Co. seat, Watertown.

JEFFERSON, a co. in e. Ohio, divided from West Virginia by the Ohio river; 250 sq.m.; pop. 29,188. The soil is very fertile, and coal is found in large quantities; the productions are wool, grain, and cattle; and manufactures are extensive in carriages, wagons, clothing, etc. This county is crossed by the Pittsburg, Cincinnati and St. Louis railroad. Co. seat, Steubenville.

JEFFERSON, a co. in w. central Pennsylvania; 500 sq.m.; pop. 21,656. It is very rough and hilly, and is rich in coal and iron. The valleys are fertile, and the surface generally well wooded. The leading products are cattle, wool, and grain, and there are manufactures of leather. Co. seat, Brookville.

JEFFERSON, an e. co. in Tennessee; 225 sq.m.; pop. 19,476; bounded on the n.w. by the Holston river, and drained by the French Broad. The Virginia and East Tennessee railroad traverses this county. The surface is mountainous, and the scenery picturesque and imposing. The valleys are fertile, producing grain and tobacco. Co. seat, Dandridge.

JEFFERSON, a s.e. co. of Texas, intersected by the Texas and New Orleans railroad; 900 sq.m.; pop. '80, 3,489. The surface along the coast is level, and affords good pasture. It is watered by the Neches and Sabine rivers, and borders on the gulf of Mexico. The greater part of this county is heavily wooded. Cotton, rice, and tobacco are grown. Co. seat, Beaumont.

JEFFERSON, a n.w. co. in Washington territory; 1550 sq.m.; pop. '70, 1268; bounded on the e. by Puget sound. It has a mountainous surface, and is heavily wooded with gigantic trees; Mt. Olympus, more than 8,000 ft. in height, is in this county. The soil is generally fertile, but is little cultivated, the chief industries being lumbering and the fisheries. Co. seat, Port Townsend.

JEFFERSON, an e. co. of West Virginia, bounded on the n.e. by the Potomac river, and s.e. and s.w. by Virginia; 280 sq.m.; pop. '70, 13,219. It is watered by the Shenandoah river, and contributes to form the valley of that name. The scenery of this county is very picturesque, especially that about Harper's Ferry. The soil is fertile, producing grain and affording good pasturage. Co. seat, Charlestown.

JEFFERSON, a s.e. co. in Wisconsin, drained by Rock river; 576 sq.m.; pop. 34,040. The soil is very fertile, and produces oats, hay, wheat, and tobacco. The Chicago and North-western and La Crosse and Milwaukee railroads traverse this county. Co. seat, Jefferson.

JEFFERSON, a t. and the co. seat of Marion co., Texas; pop. '70, 4,190; is situated 4 m. above Soda lake, on Big Cypress bayou of the Red river. It has become, since the war, a great shipping center, the Red river being navigable by large steamers; the principal exports are cotton, cattle, hides, beef, tallow, and wool; while the commerce with the interior is estimated to amount annually to more than \$10,000,000. Jefferson was settled in 1843.

JEFFERSON, a t. in Jefferson co., Wis., on the Crawfish and Rock rivers; pop. 2,176. The houses are generally built of cream-colored bricks, which are manufactured in the town. Jefferson is on the Wisconsin division of the Chicago and North-western railroad.

JEFFERSON, JOSEPH; b. Philadelphia, 1829; a character or eccentric comedian, whose reputation has been gained chiefly through his remarkable performance of the part of Rip van Winkle, in the play of that name, written by Dion Boucicault from Washington Irving's exquisite romance, which was, in turn, founded on a German legend. Mr. Jefferson inherited his talent—his grandfather, Joseph Jefferson, having been a celebrated English actor, who emigrated to America in 1795, and his mother, a Mrs. Burke, a vocalist of high reputation. He adopted the stage as a profession while very young, and was esteemed an original and able comedian, long before he essayed the part of Rip van Winkle, especially in the character of Newman Noggs, in an adaptation of Dickens's *Nicholas Nickleby*, and that of Asa Trenchard in *Our American Cousin*. Mr. Jefferson has gained some reputation as a painter of landscapes in oils, and has exhibited paintings of decided merit. He has amassed a considerable fortune in the practice of his profession, and is the owner of a sugar plantation in Louisiana and a valuable farm in New Jersey. His son, Joseph Jefferson, jr., also has displayed dramatic talent of a high order.

JEFFERSON, THOMAS (*ante*), 1743-1826; b. Va.; author of the American Declaration of Independence, and president of the United States from March 4, 1801, to March 4, 1809. He was the eldest among the eight children of Peter Jefferson, a Virginia planter, who held a leading place in his region, and Jane Randolph; both father and mother being natives of Virginia. Thomas was educated first in a common school in the ordinary studies for a boy of seven years of age, and when nine years old the rev. Mr. Douglass gave him instruction in French and in classical languages. He prepared for college under the tuition of the rev. Mr. Maury, and at the age of 17 became a student in the college of William and Mary. On his way to the college he met and made the acquaintance of

Patrick Henry, who was at that time a broken-down merchant, and had given no sign of the wonderful oratory for which he became famous at the beginning of the revolution. Jefferson was a hard-working student and speedily gained favor with his teachers; twelve to fifteen hours per day he devoted to his books, and became fairly versed in the classical tongues, and in French, Italian, and Spanish, to which he added a tolerable education in mathematics. On leaving college he turned his attention to the law, studied for about five years under judge George Wythe, and in 1767, at the age of 24, was admitted to the bar. As a lawyer his success was immediate, and he soon had a wide practice, his income from clients in the first year being about \$3,000 at a time when legal charges were comparatively light. In the following years he was still more successful; and in 1771 a prominent lawyer put him in charge of all his unfinished litigation. In 1769 Jefferson was chosen a member of the Virginia house of burgesses, and immediately became conspicuous for his opposition to the encroachments of the British government. He is credited with writing the resolutions that contained the points of a reply to governor Botetourt's speech. He was also one of the signers of the non-importation compact. The question of emancipating slaves was then agitated in England, but little had been heard on the subject in the colonies. Jefferson proposed an act which would give masters the right to free their slaves whenever they thought proper; but the bill failed to pass, and the principle was not established until 17 years later. His term over, he resumed law practice, removed to an unfinished house (subsequently world-famous as "Monticello"), and on New Year's day, 1772, was married to Martha Skelton, daughter of John Wales, a lawyer, and widow of Bathurst Skelton—a remarkably handsome and graceful woman of 23 years, who brought with her a considerable property. Among her property was 40,000 acres of land and 135 slaves. Added to about an equal amount belonging to the husband, they were enabled to begin wedded life on a liberal scale.

Early in 1773, Jefferson, Henry, and others, devised the famous committee of correspondence for the spreading of political intelligence among the colonies, and the burgesses made the two men members of that committee. In the summer the governor dissolved the house, but an election was soon afterwards held at which all the members were re-chosen and appeared in their seats in the spring of 1774. Again the house was dissolved by the governor; but not until after passing a resolution offered by Jefferson to observe the 1st of June in fasting, humiliation, and prayer, because of the adoption in parliament of the Boston port bill. After the dissolution the burgesses met secretly and proposed a convention of deputies, to be chosen by the people and to meet Aug. 1. Of this convention Jefferson was made a member, but illness prevented his attendance. This body was to choose delegates to the general congress of the colonies, and Jefferson wrote elaborate instructions for the guidance of the congressional delegates. These he sent to Peyton Randolph, the presiding officer of the convention. Some time afterwards, the burgesses directed the printing of these instructions, and the first of Jefferson's political writings appeared as "A Summary View of the Rights of British America." This document was revised by Edmund Burke and published in England, a circumstance which Jefferson supposed was the reason for including his name with others as a traitor in a bill to punish sedition. This "Summary" was a forcible argument for the right to resist oppressive taxation, and many of its points bear a close resemblance to certain parts of the Declaration of July 4, 1776. It was so radical that the convention refused to adopt it, most of the members still hoping for some peaceable compromise with the mother country. Jefferson was a member of the second Virginia convention, which met in the spring of 1775, and was one of the committee that reported a plan of defense. In the choice for members of congress Jefferson was selected as the substitute for Peyton Randolph, whose duties as governor of the colony might prevent his attendance. At the meeting of the burgesses June 1, Jefferson, though not a member, prepared the answer of the Virginia assembly to the conciliatory propositions of the home government. On June 13 Washington appointed Jefferson commander-in-chief of the forces of the colonies, and this act placed the colonies in open resistance to the British government. In congress Jefferson's arrival was impatiently awaited; and when he came his bold and vigorous reply to lord North's "conciliatory proposals" was cordially approved. This document and the "Summary" gave him high position among the ablest men in congress; and though never making long speeches he was in committee so "prompt, frank, explicit, and decisive," says John Adams, that he quickly won the warmest respect of his fellow-members. He was one of a committee to prepare a declaration of the reasons for an appeal to arms, and he and John Dickinson wrote the document which congress adopted. Jefferson was then requested to prepare the reply of congress to the proposals of lord North, and congress approved the reply and adjourned. In Nov., 1775, it was known that the last petition to the home government had been rejected. In May, 1776, Virginia instructed her delegates in congress to urge a declaration of independence by the colonies. Events were hastening to a crisis; in the early part of June a committee to prepare such a declaration was chosen, and Jefferson was put at the head. By general consent the other members of the committee looked to him to prepare the document. He consented, and wrote the American Magna Charta, all of which was his work, except two or three verbal changes proposed by Adams or Franklin. The declaration was presented to congress June 28. Four days afterwards a resolution offered by Richard Henry Lee, in obedience to instructions by Virginia, to

the same effect as the coming declaration, was adopted. On July 2, Jefferson's report was taken up, and a very warm debate followed, occupying congress exclusively until the adoption of the famous document. Some of the most eminent members made vigorous opposition. On the other side were equally eminent members as vigorously urging adoption. On Thursday, July 4, the declaration was adopted, and the record received a document that has no rival in importance in modern political history.

At the next election, Jefferson was again chosen a delegate to congress, but he declined to take his seat, believing he could best serve the cause of liberty at home, where he proposed important changes in the local laws, with a view of preparing the way for the self-government which would follow the coming independence of the colonies. During the spring he had prepared a sketch of a constitution, which he now sent to the convention in session. In the meantime a constitution had been drafted by George Mason, and the convention was about to vote upon it. The result was the addition of Jefferson's preamble to Mason's constitution, which was adopted. Jefferson was chosen to the legislature, where he labored incessantly in reforming old and proposing new laws; but he met with great opposition in the case of many of his most important propositions, and this mainly from the aristocratic and the wealthy, who feared abridgment of their privileges. One of the most important of his reforms was in the bill to establish religious freedom; another to abolish entail, and another to put an end to the right of primogeniture. At that time the condition of society in Virginia was such that the "old families" would naturally be shocked at the bold iconoclasm of Jefferson; but their opposition was in vain; the old English customs and laws were doomed, as incompatible with a republican form of government. With just pride for his share in these reforms Jefferson wrote, in the inscription prepared by himself for his monument, not only "Author of the Declaration of Independence," but also—"and of the statute of Virginia for Religious Freedom." He remained in the legislature in 1777-78, and among his leading measures was a bill to prohibit the importation of slaves. On June 1, 1779, he was chosen governor of the colony, or state, taking the chair in the darkest period of the revolution. The English were about to push the war in the south; Virginia had 10,000 men in the field, but at home was almost defenseless. The British invaded Georgia and turned northward; almost the last of Virginia's men, horses, and arms were sent to the relief of the imperiled territory. There were no coast or river fortifications, and no means of opposing a hostile fleet beyond a few small vessels and gunboats poorly equipped and feebly manned. The enemy seized Hampton and Portsmouth, and the traitor Arnold, with 2,000 men, moved up the James without serious opposition, entering Richmond, the capital, Jan. 5, 1781. The governor and other officers were compelled to leave. Arnold plundered the town, burned a portion of it, and sailed away. In April Cornwallis sent Tarleton to capture or disperse the Virginia legislature, then assembled at Charlottesville. He surprised, but did not capture them. Jefferson, who was at Monticello, near Charlottesville, hurried away his family, gathered his more valuable papers, and followed them. Tarleton had been sent especially to seize governor Jefferson, but his men stopped so often to plunder that he failed. Jefferson's term of office expired a day or two before Tarleton's foray. For his conduct at this time Jefferson was widely censured, and he felt the adverse criticisms keenly, to which mental suffering was added the loss of his wife within this period of trouble. He retired to his home, but was soon called upon by congress to become one of the commissioners to make the treaty of peace with England; but matters had progressed so far before he could sail that the appointment was revoked. He had been chosen a member of congress, and was chairman of the committee to whom the peace treaty had been referred. At the following session of congress he became active and prominent in legislation, proposing the system of coinage for the government, and preparing a plan for the temporary government of the western territory. His plan was adopted with only one important amendment; he had provided for the total abolition of slavery after the year 1800; but to this congress would not agree.

In May, 1784, Jefferson, John Adams, and Franklin were sent to Europe under a general power to make commercial treaties. Jefferson took his eldest daughter with him, and joined his associate commissioners in Paris in July. Important treaties were made with Prussia for trade, and with Morocco for the prevention of piracy. By these and other agreements blockades were abandoned, contraband articles were no longer to be confiscated, and the axiom that "the flag covers the cargo" was established. Efforts were made with England, but she would not listen to treaty propositions. About this time Jefferson published the first of his "Notes on Virginia." In 1785 he succeeded Franklin as minister to France, and in the course of his duties procured many commercial advantages for the new republic. He traveled in Italy and Germany, and in Paris became intimate with D'Alembert, Condorcet, and other extreme liberals, with whom he seemed to have an affinity. The effect of these associations was to make him through life a warm friend of the French people. In 1789 he returned, and under Washington became the first secretary of state. The organization of the government had defined political parties, and hardly was Jefferson in office before he was recognized as the republican (afterwards democratic) leader, while Alexander Hamilton was at the head of the federalists. Hamilton favored a strong federal government; Jefferson stoutly insisted upon state sovereignty and the greatest practicable limitation of the federal power.

Hamilton, however, was successful in most of his propositions. His system of finance was approved, although violently opposed by Jefferson and Randolph. Early in 1792 Jefferson made an exhaustive report on the relations between Spain and the United States, concerning boundaries, treatment of citizens, Indian invasions, the return of fugitives, and various commercial matters. In the war between France and England, 1793, the question of neutrality rose into great importance. Jefferson and his followers were warmly in favor of France, and were ready to send fleets of privateers against English commerce. The federalists (with no love for England, although so charged) insisted that the United States should keep out of the trouble; that no cause of complaint should be given to either of the belligerents; that America should keep peace and friendship with all governments, but should beware of entangling alliances with any nation. Washington issued a neutrality proclamation, under Jefferson's advice; and at the same time the latter advised that Genet, who was here as minister from France, should be officially received. The conduct of Genet in fitting out privateers in American ports raised great excitement, which was not quieted until long after his government had recalled him. Jefferson was in favor of the mildest treatment of the offender, while Hamilton and others were for extreme and summary measures. This episode created a bitterness between Jefferson and Hamilton that was never removed.

On the last day of 1793 Jefferson resigned his secretaryship and went to his home at Monticello to attend to his private business. Washington's announcement in Sept., 1796, that he would not be a candidate for a third term set politicians at work, and the result was that John Adams, then vice-president, and Thomas Jefferson, were nominated by their respective parties for the office of president. Adams, having the highest vote, was chosen president, and Jefferson having the next highest, was, under the law of the time, chosen vice-president. Like most vice-presidents down to the present day, while in office he was practically out of political life, and he passed the greater part of his time at his country home. He was, however, a close observer, and could not fail to have a deep interest in the great reaction of feeling in regard to France that followed the reign of terror. The president's war-message in the early part of 1797 created intense excitement; congress declared all treaties with France void; ship-masters were instructed to resist search; large appropriations were made for defense; the alien and sedition act was passed, with other kindred acts; and in spite of the republican opposition, that party was driven as a last resort to contest the constitutionality of the alien and sedition laws, and to work up their state organizations, in which capacity they produced the Virginia resolutions of 1798 and greatly furthered the cause of state sovereignty. The excitement regarding France was soon over, and a minister was sent to that country in 1799. Washington's death, in Dec. of that year, for a brief period lushed partisan strife; but only a few months passed when the debate became more fierce than ever. The republicans gained ground rapidly, and at the presidential election in 1800 the electoral vote (except a few which might be called "scattering") was exactly divided between Jefferson and Aaron Burr, both republicans. The house of representatives, after a long struggle and 36 ballots, made Jefferson president, and Burr, according to the law, took the second place. Jefferson placated the federalists, made few removals of public officers, and avoided all action that would be likely to impair his popularity. The stately formalities of the previous administrations were ignored; Jefferson sent his messages to congress by the first boy or man at hand, and he refused to receive the customary address from that body. Radical changes were going on in the dress and manners of the people. Trousers took the place of knee-breeches, and the old courtliness gave way to a freedom of manners that could not fail to shock the members of the old aristocracy.

The first term of Jefferson's administration was quiet, although some important events occurred, the chief of which was the purchase of Louisiana from France at the price, comparatively low, of \$15,000,000. Explorations across the continent were made at the president's request. A little war with Tripoli and the stopping of Algerine piracy were other events. In 1804 Jefferson was re-elected, with George Clinton for vice-president, there being no real opposition, since the federal party had previously gone to pieces. Their great leader Hamilton was killed in a duel with Burr in July of this year. In his second term Jefferson had to deal with the wild operations of Burr in the attempted raid upon Mexico, involving war with Spain, and other serious consequences. The prominent office and the still more prominent position held by Burr made his rash movements and his arrest and trial matters of the greatest importance. Such a trial could not fail to assume a political aspect, and the opponents of the government violently denounced it as partisan persecution. No doubt Jefferson was satisfied with Burr's acquittal; he had done his duty to all our foreign relations in the arrest and trial, and they would have no just cause of complaint. Another event during Jefferson's second term gave him much uneasiness. This was the British orders in council, followed by the Milan decree issued by Bonaparte. The effect of these, though not directed at the United States, was to ruin the foreign trade of the country and spread financial disaster over the land. But these orders and decrees were of far less political importance than the "right of search" claimed and exercised by Great Britain, under which vessels of the United States on the high seas were boarded and searched for English subjects. England then held the doctrine "once a subject always a subject."

The impressment of American sailors went on in spite of protest, until a crisis was precipitated in June, 1807, by the English ship *Richard* firing into the American frigate *Chesapeake*, and boarding and carrying away four of her men on the charge of being British deserters. The country flamed up in excitement; the president proclaimed against the coming of English armed ships into the ports or water-jurisdiction of the United States, and preparations looking to probable war were made, the first act being the embargo, which was declared in consequence not only of the hostile attitude of England but of France also. As the embargo prohibited all American vessels from leaving home ports it amounted to an entire suspension of foreign trade. The federalists started anew into life, and made the most vigorous opposition to the embargo, which was repealed Feb., 1809, only a few days before Jefferson finally left the executive chair. With March 4, 1809, his political life came to a close. He retired to Monticello, and took no further part in national questions. His plantation had most of his care, but he found time to give valuable assistance in establishing a college near Charlottesville, out of which grew the university of Virginia. He was rector of the college in 1819, and during his life took great pride in the institution, so much so that he wrote, as a part of his epitaph, "Father of the University of Virginia." Early in 1826, having fallen into serious financial embarrassment, owing chiefly to his prodigal hospitality, Jefferson was authorized by a legislative act to dispose of his plantation by lottery, but the plan was never carried into effect. In June his health failed rapidly, and on the evening of July 3 it was clear that he was fast passing away. But he lived until the afternoon of the next day, dying a few hours earlier than his presidential predecessor, John Adams, who was then lying at the point of death at the family mansion in Quincy, Mass. In person Jefferson was tall (6 ft. 2½ in.), with a bony but well-developed frame, angular features, ruddy complexion, sandy or reddish hair, and light hazel eyes. It need hardly be said that he was a man of positive opinions and convictions, and quick and firm in decision. His notions of democratic equality touched the extreme; he would not even tolerate the innocent prefix of "Mr." because it was a title. His views on religion were so liberal that he was freely accused of infidelity. He had profound respect for the moral character of Christ, but no belief in the divine redemption through Christ's work. In society he was a leveler, if not an iconoclast. He desired to reduce the aristocracy, whether of blood or wealth, and to elevate the mass of the people. Such ideas would naturally oppose human slavery, which he considered to be a great political and moral evil, saying, in reference to it, "I tremble for my country when I remember that God is just." Although he never made a formal speech in his life, he was the ablest political leader of his time. He was quick to perceive and prompt to act. Much of his vast political work was done with the pen, and no statesman of the time had any such amount of correspondence as was sent out and received at Monticello. His home might be likened to a modern telegraphic center, where the wires come together from the farthest corners of the country. He had fair scientific acquirements, and took much interest in natural history. He was a good husband, an affectionate father, and a forbearing master. Where his friendship was given it was warm and sincere; while as a host to strangers he was regarded as exceptionally charming. His writings are widely known. The more important are *Notes on Virginia*; *Manual of Parliamentary Practice*; and *The Writings of Thomas Jefferson*, being his autobiography, correspondence, reports, messages, addresses, and other writings, official and private. The originals of the last named work were purchased by congress and issued in 9 vols. by the government.

JEFFERSON CITY (*ante*), the capital of Missouri and co. seat of Cole co.; pop. 74,750; is situated on the right bank of the Missouri river, 143 m. from its junction with the Mississippi. It is on the line of the Missouri Pacific railroad, by which it is connected with St. Louis. The site is commanding and affords a fine view of the attractive scenery on the opposite bank of the river. The city is built on an elevation, and contains a number of handsome edifices, including the governor's residence, the state penitentiary, state-house, and 8 churches.

JEFFERSONIA, a perennial herb, with matted fibrous roots and glabrous leaves; named in honor of Thomas Jefferson; sometimes called twin-leaf; sepals 4, soon falling off; petals 8, oblong, flat; stamens 8, oblong-linear, on slender filaments; ovary ovoid, soon becoming gibbous (larger on one side than on the other); stigma, two-lobed; pod, pear-shaped, opening half-way round horizontally, the upper part making a lid; seeds in many rows on the lateral placenta. It belongs to the order *berberidaceæ*, sometimes called the barberry family.

JEFFERSONVILLE, a city of Clarke co., Ind.; pop. 7,254. It is situated on the Ohio river, 5 or 6 m. from New Albany and 108 m. from Indianapolis, and is connected with Louisville, Ky., which is directly opposite, by an iron railroad bridge, the longest of its kind in the United States, and which unites the railroad system of the north to that of the south. The city is built on high ground, and commands a fine view of Louisville and of the surrounding scenery. Railroads terminating here are a branch of the Ohio and Mississippi, and the Jeffersonville, Madison and Indianapolis railroad, the latter crossing the river on the iron bridge. There are a number of important manufactories in the city of railroad cars, steamboats, farm implements, etc. An arsenal, state-prison, and 14 churches are among the public buildings.

JEFFREYS, GEORGE, Lord, 1648-1689; an English lawyer, who rose to high position on the bench, but disgraced the ermine and rendered his name infamous forever by his needless cruelties and the unparalleled brutality of his manners. He was the son of a squire of small means, who, however, contrived to give him an education, which only rendered his evil propensities stronger. Macaulay said of his intellect, that "across labyrinths of sophistry, or through masses of immaterial fact, it would go straight to the true point." Such manners as he possessed were marked by a brutal ferocity which was never equaled by the worst ruffians or infamous characters among those whom he condemned. The very name of lord Jeffreys, even after the lapse of centuries, is synonymous with cruelty. He commenced practice at the Old Bailey, and was first common sergeant and then recorder of London, and, being a willing slave of the court, rose in his profession, until, in 1683, he became chief-justice of the king's bench. It was in this capacity that he traversed the western circuit, when the severity of the sentences which he passed upon all who had taken part in Monmouth's fatal rebellion gained for it the name of the "Bloody Assizes;" he is said to have condemned 700 of these offenders to the scaffold, and boasted of his action. He was made lord high chancellor by James II., but on the outbreak of the revolution and the downfall of his patron, James II., fearing the treatment which he had reason to expect from William III., he attempted to leave the country in the dress of a common sailor; but was recognized in spite of his disguise and taken to the Tower, where he died. He was created a peer by James II., with the title of baron Jeffreys of Wem, but, although he had 12 children, the family became extinct in a comparatively short time, and the title lapsed.

JEFFRIES, JOHN, 1744-1819; graduated at Harvard, and afterwards traveled in Europe, and attended classes at the medical colleges in London. He visited Scotland, and received the degree of M.D. from Aberdeen university. Returning to America, he practiced at Boston until that city was evacuated by the British, when he accompanied the English troops to Halifax. He distinguished himself as an army surgeon, and in 1779 was appointed surgeon-major of the British forces in America, and was for a short time in Savannah, Ga. Although he was offered a similar position with the troops in India, he declined; he was greatly interested in scientific experiments, and more especially in the construction of balloons, with a view to atmospheric experiments, and accompanied François Blanchard, in his balloon trip from Dover across the channel, on which occasion the aeronauts landed in the midst of the forest of Guines in France. Dr. Jeffries received many testimonials for this exploit from the various scientific societies of Europe and America. Returning to his native town, Boston, he continued the practice of his profession in that city. He proposed giving a series of anatomical lectures there, but the popular feeling against it was so strong that a mob broke into his room, seized the subject which was to illustrate his lecture, and by their violence put a stop to the course of lectures.

JEHOSHAPHAT, fourth king of Judah, B.C. 915-890, son of Asa, connected by the marriage of their children with Ahab, king of Israel, and was his ally at the battle of Ramoth-Gilead, suffering defeat from the Syrians. He was an ally of Ahaziah, king of Israel, but was unfortunate in a naval venture which he sent on an expedition to Ophir, the fleet never reaching harbor. In alliance with Jehoram of Israel, and the king of Edom, he made a successful campaign against Moab. In the closing years of his reign Jehoram, his son, shared the throne with him. He is celebrated for his successful opposition to the worship of idols, for the respect which he inspired in the minds of contemporaneous rulers, and for the prosperity of a government in which agriculture and commerce were encouraged. Jehoshaphat signifies "Jehovah's judgment."

JEHOSHAPHAT, VALLEY OF, a valley in which the prophet Joel predicts that God would, after the return of Judah and Israel from captivity, gather all the heathen, and there judge them for their evil treatment of Israel. The prophet may have had in mind the great victory of Jehoshaphat in the wilderness of Tekoah over the hordes of his enemies. Or it may mean a valley in which some great victory would be won, which should utterly discomfit the ancient enemies of Israel, resembling the victory obtained by Jehoshaphat over the Ammonites, Moabites, and Edomites, 2 Chron. xx. 22-26. Where this valley was we do not know, but in modern times the name is applied to the deep ravine which separates Jerusalem from the mount of Olives, and which was formerly the bed of the brook Kedron. When the name was first given to this spot is not known. Neither in the Bible nor Josephus is there any trace of it. The only name in both for this gorge is Kedron or Cedron. We find the new name first given in the 4th c. by Eusebius and Jerome. Since then the name has been adopted by travelers of all ages and all faiths. Jews, Moslems, and some Christians believe that here is to be the scene of the last judgment. The steep sides of the ravine are crowded with the sepulchers of the Moslems and the Jews, all awaiting the assembly of the last judgment. This valley is fully described by Robinson in his *Biblical Researches*.

JEHOVAH (*ante*), the name given in the Old Testament to God as revealing himself to man from the beginning of history, and to become incarnate in the fullness of time. After the narrative in the first of Genesis, ascribing the creation of the heavens and earth to God, there is a repeated account of a part of the work, in its particular relations to men, which is ascribed to Jehovah God, who is said to have appeared to Adam, Eve,

Abel, and Cain. Afterwards, generally named Jehovah, sometimes God and Jehovah God, he appeared to Noah, exercising sovereign control over men in sending the deluge, in delivering from it, and promising that there should be no repetition of it; and, when the number of mankind had again increased, in confounding their speech so that they were scattered abroad. At and after the calling of Abraham a more particular account of the divine manifestations is given, in which the name most frequently employed is Jehovah; and with it are interchangeably used Lord Jehovah, Jehovah God, Almighty God, and God. Frequently the divine appearance was in human form, receiving the names Jehovah, Angel Jehovah, and God; and administering providential government in blessing Abraham, delivering Lot, and destroying the cities of the plain. These divine manifestations were repeated to Isaac and Jacob, the latter of whom, at the close of his life, thus summed up the account of them: "God before whom my fathers Abraham and Isaac did walk, the God who fed me all my life long, the Angel who redeemed me from all evil." In the deliverance of Israel out of Egypt a great advance was made in the manifestation of Jehovah. The Angel Jehovah, called also Jehovah and God, appeared to Moses at Horeb, sent him to Pharaoh, performed the mighty works which resulted in the release of Israel, divided the Red sea, gave the law at Sinai, administered in the wilderness the divine government of mercy and judgment down to the death and burial of Moses; brought the people into Canaan under Joshua; and governed them during the times of the judges, kings, and prophets.

The name Jehovah, used thus in the Old Testament, was translated in the Greek version by *ὁ κυριος* (Lord), which by that fact became familiar to the Jews and was adopted in the New Testament as a title of the divine Redeemer incarnate among men. In this way it came about that in the English version of the Bible the Hebrew name Jehovah was translated the Lord. Concerning the signification of the Hebrew name, derived as it evidently is from the verb denoting being or existence, two opinions are held: first, that it represents the eternal existence of God; and second, that in the Old Testament it pointed forward to his existence as it would be manifested in his coming to be the Redeemer. All admit that its form in the Hebrew Bible—Jehovah—is a modification of the original, resulting from the practice of the later Jews in pronouncing *Adonai* instead of it, whenever they came to it in the text, and in transferring to it the vowels of the substituted word in order to mark the change. Its proper form is the future of the verb from which it is derived; and its meaning seems to be pointed out by God's own answer to the question of Moses concerning the name by which God should be spoken of to Israel: "Say, 'I WILL BE' hath sent me unto you; and say, moreover, Jehovah, God of your fathers, hath sent me unto you; this is my name forever, and this my memorial unto all generations." This being the meaning of the name, some go further and say that, probably, it was first used by Eve at the birth of her first-born son when she named him Cain, meaning acquisition, and said "I have acquired a man, even him who will be," that is the coming One, the promised deliverer. Such being the origin of the word it was adopted, as those who hold this theory think, by the Lord as a name by which he would be known among men as the Redeemer through all generations. An argument against this view is that the particle prefixed to Jehovah in this text, translated in the English version "from," often has the force of a preposition, and from the beginning of Genesis to the cessation of the deluge is certainly so used ten times. It is therefore possible that Eve may have meant, I have acquired a man *with* the Lord, that is by his help. The argument for the view is that the prefixed particle often has only a demonstrative force, giving emphasis to the word before which it is placed; and that in the part of Genesis just specified it is so used without question 108 times (49 prior to the particular instance referred to and 59 after it) to give emphasis to each thing brought forward in succession as created or divinely ordered. The probability, therefore, so far as the use of the word is concerned, is, it is said, more than ten to one in favor of the view. That Eve supposed her first-born son was the promised deliverer seems to be indicated by her disappointment when, a second having been born, she named him *vanity*. And if she supposed so, why should it not be thought that the particle prefixed to the "coming One" was intended by her to point him out emphatically, as in the more than one hundred instances which it so much resembles?

If the meaning of Jehovah be the coming One, the deliverer, it explains the declaration of God to Moses that he had been known to Abraham, Isaac, and Jacob as God Almighty, but not by his name Jehovah. That they were acquainted with the name as ascribed to God is manifest; but it is also certain that while the Lord had exhibited his great power in providing for and protecting them he had not by any signal interposition made himself known as the deliverer. This he was now about to do, in stretching out for the deliverance of Israel a mighty hand, such as the world had never seen, but which has been held in remembrance ever since. As the fullness of time drew nearer, the prophets gave increased prominence to Jehovah as the coming One: from the comforting words of Isaiah, "Prepare ye the way of Jehovah, behold Jehovah God will come with strong hand;" to the closing words of Malachi, "The Lord whom ye seek shall suddenly come to his temple, even the Angel of the covenant whom ye delight in." When the time had arrived, John the Baptist announced the Lord as the coming One after him; and from the prison sent the inquiry to him, Art thou the coming One? And as, at the beginning, Jehovah himself had promised his coming, so, at the end, he

opens the apocalypse with the declaration, "I am he who is, who was, and who is to come, the Almighty;" and closes it with the promise, "Surely I come quickly."

JEHU, eleventh king of Israel, B.C. 883-855; son of Jehoshaphat, and grandson of Nimshi, beginning his military career as one of the guards of Ahab. He was distinguished as a charioteer for his rapid driving, and a certain reckless vehemence of manner. The first mention made of him in history is his appearance, with his comrade, Bidkar, on a journey from Samaria to Jezreel, riding in company with Ahab, when he hears the warning of Elijah against the murderer of Naboth. He is mentioned in the vision at Horeb as the coming king of Israel, who should be an instrument of vengeance upon Israel, but was annointed by a prophet of Elisha in the reign of Ahaziah and Jehoram, when as a commander in the Israelitish army, posted at Ramoth Gilead, at a council of war, there appeared unexpectedly at the door of the tent a disciple of Elisha, who poured the contents of a vial of sacred oil upon his head, announced the prophecy of Elisha that he was to become king of Israel, and that the house of Ahab should fail by his hand, then vanished from their midst. On this suggestion he was proclaimed king with the wildest enthusiasm. He at once appointed Bidkar captain in his place, and having by a strategic movement brought himself face to face with Jehoram on the field of Naboth, killed him by a shot from his bow. At that moment he recalls to Bidkar's remembrance the scene of the ride with Ahab, and the warning of Elijah. Riding into the conquered city he caused Jezabel to be thrown from the palace walls, killing her instantly. He required, as proof of the loyalty of Samaria, that the heads of all the royal princes should be brought to him; the next morning 70 human heads lay in a pile at the palace gate. He also slew 42 brothers of Ahaziah, sons of the late king of Judah, whom he met on his way to Samaria. Having made an ally of Jehonadab the Rechabite, he proclaimed a festival, at which he assembled all the ministers and chief adherents of Baal, whom he provided with sacerdotal vestments so that the worshipers of Jehovah might not be confounded with them. The multitude of these idolaters filled the great temple of Samaria, around which, to prevent the escape of any, guards were placed. The chief sacrifice Jehu himself offered in the fervor of his pretended zeal. After he had made himself doubly sure that none except the adherents of Baal were present, he gave the signal to his trusted guards, who, by a sweeping massacre, cut off the chief heathen population of the kingdom. Thus a staggering blow was struck at a form of idolatry which, from its entrance among the Israelites, had been the source of unbounded licentiousness, varied abominable immoralities, and cruel infanticide. But after this Jehu's hostility to idolatry manifestly declined, and for fear of adverse political consequences to himself, he allowed the worship of the golden calves to continue undisturbed. For the measure of right that he had practiced his dynasty was continued through four generations, but because of his imperfect obedience his prosperity was cut short. He died in outward tranquillity and was buried in Samaria. His name has passed into a type of fierce and fiery zeal uncontrolled by the grander forces of righteousness and the Divine love.

JEJEEBHOY, SIR JAMSETJEE. SEE JEEJEEBHOY, *ante*.

JEJUNUM, that portion of a small intestine which is situated between the duodenum and the ileum, and forming about one-third of the length of this portion of the intestinal tract. It derives its name from the fact that in *post-mortem* examinations it is almost always found empty (Lat. *jejūnus*, empty). The mucous membrane of the whole of the small intestine is very vascular, but that of the jejunum is more vascular than that of the ileum, and its coats are also rather thicker. The mucous membrane of this whole tract is also increased in surface by the existence of partial cross-bands called *valvule conniventes*, but these are much more developed in the jejunum than in the ileum or in the duodenum. In the jejunum these valves increase the mucous surface to double what it otherwise would be, the folds occupying between one-third and one-half of the circumference, and from one-third to one-half an inch wide. SEE ILEUM.

JELLY-FISH. SEE ACALEPHÆ, *ante*.

JENGIS KHAN. SEE GENGHIS KHAN, *ante*.

JENISEI. SEE YENISEI, *ante*.

JENKINS, CHARLES J., b. S. C., 1805; received his education at the university of Georgia, and Union college, Schenectady, N. Y. He was elected a member of the Georgia legislature in 1830, and was speaker when his party was in power. Although a Jeffersonian democrat, he supported Harrison for the presidency in 1840, and Clay in 1844. He was appointed in 1860 to fill a vacancy in the supreme court of the state, and held the position during the rebellion. He took a prominent part in the state convention called by president Johnson, in 1865, and was elected governor of the state under the new constitution, retaining the office until 1868, when he was superseded, under the reconstruction acts, by gen. Ruger of the U. S. army.

JENKINS, THORNTON A., b. Va., 1811; entered the U. S. navy in 1828 as a midshipman, and rose to be rear-admiral in 1870; retired from active service, 1873. He served with the Mediterranean, African, and North and South Atlantic squadrons, until 1845, when he was deputed to investigate the light-house systems of Europe. Out of this investigation grew the law of 1852, framed by lieut. Jenkins, and under which the

light-house board has been ever since administered. After serving on the coast of South America and in Central America, and in Mexico during the war with that country, Jenkins was promoted to a captaincy in 1862, and did good service during the rebellion. He had an important post at the battle of Mobile bay, and was highly commended in the report of admiral Farragut. In 1865 he was chief of the bureau of navigation; 1869-71, naval secretary of the light-house board; 1871-73, in command of the East India squadron. In 1876 admiral Jenkins had charge of the exhibit of the U. S. navy department in the centennial exhibition at Philadelphia.

JENKS, JOSEPH, d. 1683; b. England; a metal-worker, supposed to have been the first founder and inventor in America, having settled in Lynn, Mass., in 1645. He worked in brass and iron, but experimented in mechanics in different directions, and is recorded as having received a patent in 1646 for an application of water-power to mills. He also invented a saw-mill and a fire-engine. He is said to have made the dies for the pine-tree money issued in Massachusetts in 1652. Jenks had his foundry on the Saugus river at Lynn, and in 1667 was there engaged in wire-drawing, and appears on the records as an applicant to the general court for aid in his business.

JENNER, Sir WILLIAM, b. England, 1815. He was professor of pathological anatomy at University college, London, and professor of clinical medicine in the same institution for many years. In 1861 he was named physician in ordinary to the queen. He was a personal friend of the late prince consort, whose death-bed he attended. He was made a baronet in 1858, and K.C.B. after the recovery of the prince of Wales in 1872. He has published *Gulstonian Lectures*, but his fame will probably rest upon his *Identity and Non-identity of Typhus and Typhoid Fevers*.

JENNINGS, a s.e. co. in Indiana; watered by the branches of the Muscatatuk river; 375 sq. m.; pop. '70, 16,218. It has an undulating surface, and is fertile and productive. It is traversed by the Madison and Indianapolis, and Ohio and Mississippi railroads. Co. seat, Vernon.

JENNINGS, WILLIAM, 1701-97; b. England; gained notoriety and lasting fame from his miserly habits. When a boy he was attached to the personal service of George I. as a page; but on arriving at his majority, he went into retirement on his family estate in Suffolk, where he passed the most of his time, living the life of a hermit, denying himself that he might accumulate wealth. He visited London during the season, making a profitable business of loaning money. He died intestate, his will not being executed, and his immense property, valued at £1,000,000, was never divided, and the disposition of it is still indefatigably claimed by those of his name in England and America.

JENYNS, SOAME, 1704-87; b. London; was educated at Cambridge, and represented Cambridgeshire in parliament, 1742. He became a somewhat noted wit, and wrote poetry; his first work being a poem on the *Art of Dancing*. Dr. Johnson criticised his *Free Inquiry into the Nature and Origin of Evil*. In a later work, *A View of the Internal Evidences of the Christian Religion*, the author narrated his own skepticism and subsequent conversion. This work had formerly the reputation of being the best published argument in favor of Christianity.

JEPHTHAH, ninth judge of the Israelites, B.C. 1256-50, illegitimate son of Gilead, of the tribe of Manasseh. Driven from home by his brothers, who were born in wedlock, he removed to the land of Tob, beyond the Hebrew frontier. He was distinguished for bravery and skill in arms, and was the leader of a number of adventurous men whose fortunes were as desperate as his own. He led a band of brigands, whose profession is considered, in the east, one not destitute of honor if exercised in moderation and against natural enemies, public or private. He was chosen capt. of the Israelitish forces in their opposition to the Ammonites, and accepted the position, with the stipulation that, if victory attended their arms, he should still remain their ruler. His diplomatic dealings with the Ammonites in the preliminary movements have been deemed worthy of notice; they being the original owners of the land, which he claimed by right of conquest, fighting the battle on that issue. He defeated them with great slaughter in several pitched battles, and pursued them to utter discomfiture and rout. He made a vow to the Lord, that if he would deliver the Ammonites into his hands, whoever should come out of the door of his house, in Mizpeh, to meet him on his return, he would offer up to the Lord as a burnt-offering. His daughter met him, and it is written "he did with her according to his vow." There has been much debate whether he sacrificed her life, or dedicated her in perpetual virginity to the Lord. The case remains doubtful; but the belief preponderates with scholars that a ransom, not unusual under Jewish law in cases involving human life, was given in substitute for her life, which thereafter was regarded as devoted to God. The whole drift of the Mosaic law is well known to have been utterly against human sacrifices in the worship of Jehovah. He conquered the Ephraimites, and, controlling the fords of the Jordan, slew all who, on being required as they passed over to pronounce the word "shibboleth" (an ear of corn), gave the word "sibboleth" without the aspirate, thereby revealing themselves as Ephraimites. He was buried in a city of his native Gilead.

JEQUITINHON'HA, a Brazilian river, which falls into the Atlantic near Belmonte, in Bahia, lat. 15° 50' s., long. 39° west. Its length is about 750 m., and the area of its

basin is 19,800 sq. miles. Its course is over a rough and precipitous bed, in several places forming magnificent cataracts, falling from heights varying between 250 and 300 ft., and it is navigable only by canoes between Minas Geraes and Bahia. The main channel of the river is formed by the junction of the Pardo and the Poassú rivers. The principal tributary of the Jequitinhonha is the Arassuaí.

JEREMIAH, PROPHECY OF (*ante*), though not arranged in the order in which it was delivered may be divided, with some degree of correctness, by the aid of time marks which some of the chapters supply. The introduction contains the title of the book; the period during which its prophecies were spoken; Jeremiah's call to the prophetic office; emblems indicating to him that the judgments to be denounced, coming from the north, would be executed quickly and would be severe; and the exhortation to him to be diligent, faithful, and confident in the protection of God. Part I., comprising prophecies delivered during 18 years of Josiah's reign. The Lord, recounting the loving relations between himself and Israel, reproaches them for having forsaken him and exhorts them to return; Judah is charged with being even more guilty than Israel; Israel, exhorted to repent, is promised a time of deliverance; Judah and Jerusalem are urged to avert, by immediate repentance, the Babylonian invasion which, otherwise, would speedily come, inflicting misery on the people and desolation on the land; are warned not to believe the flattering words of false prophets, or trust to the sacredness of the temple as a defense against the divine judgments; are reminded of the transgressions and idolatries of which they were guilty, notwithstanding the divine instructions and blessings; the desolation of Jerusalem and the other cities of Judah, declared; the confidence of the Jews, as possessors of the law which they transgressed, pronounced vain; Jeremiah overwhelmed with sorrow in view of the calamities which he is compelled to foretell; the vain splendor of idols contrasted with the majesty of God; the terms of the covenant with the people, again declared; condemnation for violating them; destruction pronounced on those who threaten the prophet; Jeremiah, acknowledging the righteousness of the Lord, pleads with him concerning the apparent prosperity of the wicked, and is assured that it will soon come to an end, and that lasting peace can be obtained only by righteous obedience. Part II. Prophecies during the 11 years of Jehoiakim's reign. The destruction of the pride and grandeur of the land foretold under the emblems of a decayed girdle and of bursting wine bottles; the king and queen called on to humble themselves because of the approaching captivity of themselves and their land; a grievous famine predicted, leading to the prophet's confession of the people's sin and his entreaty for their forgiveness, and followed by the assurance that they had become incorrigible and that prayer for them could not avail; the certainty of their doom illustrated by the prohibition of marriage and of feasting; their ultimate restoration to their land promised; confidence in man condemned and trust in God commended; blessings promised to those who hallowed the Sabbath and judgments pronounced on those who profaned it; a potter working in clay used as an emblem of God's sovereignty in averting threatened judgments when nations repent, and withholding promised blessings when they transgress; the Jews, exhorted to avert judgments from themselves by returning to God, refuse, and conspire against Jeremiah's life; his prayer for the interposition of God against them; the breaking of a potter's vessel, in the sight of the princes and priests, as a symbol of the destruction of Jerusalem; the condemnation of Pashur, who had charge of the temple, for his arrest of Jeremiah, and the emblematic name given him signifying "Terror is around," and prefiguring the captivity of himself, his friends, and the nation; Jeremiah's appeal to God for help under the burdens of his office, followed by lamentation over the day of his birth; the doom of Jehoiakim and his family pronounced; a brighter day promised in the distant future under the reign of the righteous king of the family of David, whose name shall be "Jehovah our righteousness"; judgments threatened against false prophets; Jeremiah arrested and declared worthy of death for having proclaimed the word of the Lord against Jerusalem; the obedience of the Rechabites to their father contrasted with the disobedience of the people to God; the prophecies of Jeremiah against Jerusalem burned by the king and rewritten; Nebuchadnezzar's victories foretold over Egypt, Philistia, Tyre, Moab, Ammon, Edom, Syria, and Kedar. Part III. Prophecies during the 11 years of Zedekiah's reign. Conquest of Persia by the Chaldeans foretold, with promise of its final deliverance; the deliverance of the first captives in Babylon and the destruction of Zedekiah and his kingdom foretold under the emblem of good and bad figs; warning to the Jews that their captivity would not be brief, with the assurance of deliverance at the end of 70 years; their return, conversion to their Messiah, and subsequent happiness, promised; the destruction of Babylon foretold; Jeremiah cast into a miry dungeon, and released by the king's command; Zedekiah required to choose between safety for himself and the city if he submitted to the king of Babylon, and destruction to both if he continued to resist; his continued resistance resulting in his blindness and captivity; Jeremiah released by the conqueror's command, with the offer of kind treatment in Babylon or liberty to dwell anywhere else; his choice to continue with the remnant of the people, promising them safety and blessing if they remained at home, but pronouncing their destruction if they went down to Egypt; their persistence in going down, taking him with them.

After this, in the absence of certain knowledge concerning this prophet, there are

conflicting traditions that he was stoned to death by his countrymen in Egypt; that he died there, broken down with sorrow; that he returned to Judea; and that he went to Babylon and died there.

JEREZ DE LA FRONTERA, or **XEREZ**, a Spanish t., situated upon the Guadalete river, in the province of Andalusia; pop. 38,898. It is noted for the production of the celebrated Xeres wine, which is made from grapes from the surrounding vineyards. Divided into the old and new town, the walls of the ancient Jerez are still standing where Roderick the Visigoth fought a battle with the Moors in 711, and was defeated. The Moors continued in possession of the town until the middle of the 13th c., when it was recaptured by Alonzo the wise. The new town is well laid out, contains three handsome squares, and its streets are well lighted and kept in good order. The cathedral, dating back to 1695, and a few of the churches are interesting buildings. There are 5 convents, a number of monasteries, 5 hospitals, and free schools. The old Moorish castle is a splendid specimen of architecture.

JERFALCON. See **GYRFALCON**, *ante*.

JERICHO, ROSE OF. See **ROSE OF JERICHO**, *ante*.

JEROBOAM I., d. 935 B.C.; son of Nebat, of the tribe of Ephraim, and the founder of the kingdom of Israel. During the reign of Solomon, he had charge of the public works of Jerusalem, but engaged in a conspiracy against the king, and was forced to flee to avoid punishment. This action on his part was occasioned by his having received the assurance of the prophet Ahijah that, on the forthcoming revolt of the ten tribes, he should be appointed their ruler. Having placed himself under the protection of Shishak, king of Egypt, he returned to Jerusalem after the death of Solomon, when the prophecy of Ahijah was fulfilled by his being elected by the ten revolting tribes to reign over them as king of Israel. Judah and Benjamin remaining loyal to Rehoboam, Jeroboam fortified Shechem, where he set up his altars, while he sought to prevent the tribes reuniting. He fought Judah with success, but was defeated by Abijah. He is spoken of in Scripture as having "made Israel to sin."

JEROBOAM II., was the son of Jehoash, or Joash, and reigned after his father's death, 823-782 B.C. He defeated the Syrians, and wrested Damascus and Hamath from them. He was a worshiper of Baal and promoted idolatry, and his reign, though prosperous, was immoral and cruel.

JÉRÔME, KING OF WESTPHALIA. See **BONAPARTE, JÉRÔME**, *ante*.

JERROLD, WILLIAM BLANCHARD, b. London, 1826; studied art, and effected something in illustration, but had not the taste for it, and gave it up for literature. He wrote sketches for the magazines and weekly papers in London, and in 1847 published his first story, *The Disgrace to the Family*. He contributed leading articles to the *Daily News*, *Morning Post*, and *Lloyd's Weekly Newspaper*; wrote farces and comedies; and in 1857 became editor of *Lloyd's Weekly Newspaper*. In 1858 he published his *Life and Remains of Douglas Jerrold*, and in 1860 *The French under Arms*, and *The Chronicles of a Crutch*; and during the following years wrote novels, sketches of travels, studies of social life—particularly among the poor of large cities—political articles, and plays. His most important work is his *Life of Napoleon III.*, of which the first volume was issued in 1874, and three volumes have been published. Mr. Jerrold was married in 1849 to the only daughter of his godfather, Laman Blanchard.

JERSEY, a co. in s.w. Illinois; bounded s. by the Mississippi and w. by the Illinois rivers; traversed by the Chicago and Alton railroad; 350 sq.m.; pop. 15,054. The surface comprises woodland and prairie, the soil being generally fertile; staple products are grain, cattle, and wool; and coal measures occur and are extensively mined. Co. seat, Jerseyville.

JERSEY CITY (*ante*) stands upon a peninsula once known as Paulus Hook, and used for farming purposes for 150 years before the beginning of the present century. In 1802 it contained but 13 inhabitants, living in a single house. In 1804 the legislature of New Jersey granted a charter to the "associates of the Jersey company," who laid out the place into blocks and streets. Commercially considered, it was from the beginning a dependency of New York, though belonging to another state. In 1820 it had gained so much in population and business that it was incorporated as "the city of Jersey"—a name which is rather an attestation of the commercial aspirations than of the good taste of the corporators. In 1838 it was reincorporated under the name of "Jersey City." It is bounded on the n. by North Bergen, West Hoboken, and Hoboken; s. by Bayonne; w. by Newark bay, Hackensack river, and Penhorn creek; and e. by the Hudson river, which separates it from New York. Its length from n. to s. is about 5 m.; its width from e. to w. about 3 miles. It is for the most part regularly laid out, the streets being wide and crossing each other at right angles. It is the county seat of Hudson co., and its chief public buildings are the city hall, the county court-house and jail, and a commodious market. There are many handsome residences, numerous substantial business structures, excellent school buildings, and a number of fine churches. There are four small public squares, two of them provided with fountains and adorned with trees, another divided by intersecting streets, and the fourth used for military

parades. The increase of population from 29,227 in 1860 to 82,546 in 1870 is accounted for in part by the annexation of the cities of Hudson and Bergen, each of which contained more than 7,000 inhabitants. In 1872 the township of Greenville was also annexed, with a population of 2,789. In 1870 the number of families in the city was 16,687; of dwellings, 9,867. Of the total population, 31,835 were of foreign birth, 17,665 being natives of Ireland, 7,151 of Germany, 4,008 of England, and 1,176 of Scotland. The Morris canal, which connects the waters of the Delaware with those of the Hudson, has its terminus here. Five lines of railway also approach New York at this point, viz.: the Erie, the Pennsylvania, the Central of New Jersey, the Northern New Jersey, the New Jersey Midland, and the New York and Newark. Commodious and well-appointed steam ferry-boats ply constantly, day and night, between Jersey City and New York, and the work of constructing a tunnel under the Hudson between the two cities has already been begun. The projectors of this enterprise are confident of its complete success. Horse-cars ply between the different sections of Jersey City, and connect it also with Hoboken, West Hoboken, and Bayonne. The city is not a port of entry but a part of the New York customs district, so that its commerce is not separately returned. The Cunard line of English ocean steamers has its place of landing for both passengers and freight at this point, and the immense quantities of coal and iron brought hither by the canal and the railroads create a large business. The manufacturing interests of the city are extensive and important. The principal establishments are the United States watch manufactory, extensive glass works, crucible works, steel works, zinc works, boiler works, machine-shops, foundries, railroad repair and supply shops, locomotive works, sugar refineries, breweries, planing-mills, manufactories of chains and spikes, medals, car-springs, pottery, soap and candles, saleratus, castor and linseed oils, copper articles, jewelry, fireworks, drugs and chemicals, lead pencils, etc. The business of slaughtering animals for the New York market is carried on in the northern part of the city, near the river front, where an abattoir and stock-yards have been provided for the purpose. Jersey City contains 3 national banks, with a capital of \$1,150,000, 2 state and 8 savings banks, 4 insurance companies, and a trust company with \$200,000 capital. The streets are well paved and sewered and lighted with gas, and the city is supplied with water from the Passaic river. The arrangements for extinguishing fires are of the most improved kind. The assessed value of property in 1873 was \$62,292,138. The bonded debt in 1874 amounted to over \$13,000,000. The public schools are well managed and of a high character. The number of children of school age (5 to 18 years) in 1873 was 30,758; enrolled in day-schools, 16,762; average attendance, 8,320; number of teachers, 250, of whom 232 were women; value of school property, \$674,416. The number of private schools was 30, with 5,973 pupils. The principal charitable institutions are the city hospital, the home for aged women, and the children's home. There are 2 daily and 3 weekly newspapers—2 of the latter German. The number of churches is 60, and the principal denominations are Baptists, Congregationalists, Episcopalians, Methodists, Presbyterians, Lutherans, Roman Catholics, and Universalists. Pop. '80, 120,728.

JERSEYVILLE, a city, the co. seat of Jersey co., Illinois, on a branch of the Chicago and Alton railroad, 50 m. from St. Louis; pop. 2,576. It is built on an elevation, and laid out in broad, shaded streets, with handsome buildings, including 8 churches, a public school, and numerous manufacturing establishments of importance.

JERUSALEM CHAMBER, the room in Westminster Abbey to which the sessions of the assembly of divines, which during the summer had been held in the chapel of Henry VII., were transferred when the weather became cold. Baillie, one of the Scotch commissioners, describes it "as a fair room about the bounds of the college fore-hall, but wider. At the one end, nearest the door, and both sides, are stages of seats as in the new assembly house at Edinburgh, but not so high; for there will be room but for five or six score. At the upmost end there is a chair set on a frame, a foot from the earth, for the Mr. Prolocutor. Before it on the ground stand two chairs for the two Mr. Assessors. Before these, through the length of the room, stands a table at which sit the two scribes. The house is all well hung, and has a good fire, which is some *daintise* at London. Foranent the table, upon the prolocutor's right hand, there are three or four ranks of forms. On the lowest we five do sit; upon the other, at our backs, the members of parliament deputed to the assembly. On the forms foranent us, on the prolocutor's left hand, going from the upper end of the house to the chimney, and at the other end of the house, and back of the table, till it come about to our seats, are four or five stages of forms, whereupon their divines sit as they please, albeit commonly they keep the same place. From the chimney to the door there are no seats, but a void for passage. The lords of parliament use to sit on chairs, in that void, about the fire."

JERUSALEM CHERRY. There are two species of *solanum* bearing this name, which are cultivated in gardens as ornamental plants. The best known, is the *S. pseudo-capsicum*, brought to England from Madeira in 1596. It is a house shrub, with a rounded top upon a short stalk, all being from 1 to 2 ft. high; leaves lance-oblong; small white flowers developing into bright red berries as large as cherries. It may be raised from seeds or grown from cuttings; seeds sown in the spring will yield fruit the following winter. The *dwarf* Jerusalem cherry is *S. capricastrum*, and is about half the size of the above, and has an orange tint, rather than scarlet. In England it is raised for

Christmas decorations; an improved sort is called *S. hybridum compactum*, used for table decorations.

JERUSALEM, COUNCILS OF. I. The first Christian council (Acts xv.), held about 47 A.D., to consider questions raised in the church of Antioch concerning the obligation of Gentile Christians to observe the Jewish law. By the decision of the council it was declared to be necessary for such Christians to abstain from (1) meats which had been offered to idols; (2) blood and strangled things; (3) fornication. This council seems to have comprised only one church, that in Jerusalem, though this church may have embraced several local congregations in that city, organized, as a church in common. II. In 335 a council, formed of the bishops who had assembled at the consecration of the church of the Holy Sepulcher, restored Arius to fellowship and allowed him to return to Alexandria. III. In 349 Maximus of Jerusalem and 60 other bishops, on the return of Athanasius to Alexandria, revoked the decree against him and drew up a letter to his church. IV. In 399 a council held in consequence of a letter from Theophilus of Alexandria on the decree passed against the Origenists assented to it, and resolved not to have fellowship with any who denied the equality of the Son with the Father. V. In 453, on Juvenal's restoration by the emperor Marcian to the see of Jerusalem. VI. In 553 the acts of the fifth ecumenical council of Constantinople were received by all the bishops of Palestine except Alexander of Abilene, who was consequently deposed. VII. An important council held in Jerusalem was that of 1672. It was convened by Dositheus, patriarch of Jerusalem, and was composed of more than 60 bishops and other officers in his diocese. Its object was to oppose Calvinism which had been introduced into the east by Cyrillus Lucaris. Its measures led to its being charged with favoring Romanism, and occasioned considerable trouble in the church.

JERUSALEM CREED, a form generally supposed to have been adopted by the churches of that city. Some think that it was written by Cyril of Jerusalem, 350 A.D.; others assign it to an earlier date. It is preserved as follows in Cyril's discourses, though, if the text be correct, it confounds Christ's resurrection with his ascension: "I believe in one God, the Father Almighty, maker of heaven and earth, and of all things, visible and invisible; and in one Lord Jesus Christ, the only-begotten Son of God, begotten of the Father before all worlds, very God, by whom all things were made, who, was incarnate and made man, crucified and buried, and the third day ascended into the heavens, and sat down at the right hand of the Father; and is coming to judge quick and dead. And in the Holy Ghost, the paraclete, who spake by the prophets; and in one holy catholic church; and resurrection of the flesh; and in life everlasting."

JERVOIS, Sir WILLIAM F. D., b. England, 1821; was educated at Woolwich, entered the royal engineers, and completed his studies at Chatham. In 1841 he was ordered to the cape of Good Hope, where he remained seven years employed in engineering duties; and, for a time, in active service against the Boers and Kaffers. Ordered home in 1848 he continued to be employed on important engineering duty, and in 1856 was made assistant inspector-general of fortifications, deputy director of fortifications in 1862, and nominated a commander of the Bath in 1863. Sent in 1864 to report on the defenses of the British provinces in America, he examined also the Atlantic coast forts of the United States. He was appointed governor of the Straits settlements in 1875, but transferred to be governor of South Australia in 1877, a post which he still occupies (1880).

JESHURUN, or **JESURUN**, a poetical or symbolical name for Israel, used three times in Deuteronomy and once in Isaiah. The root of the word denotes *straight, right, upright*, and the idea then conveyed by the name seems to be that God recognizes his people as righteous by virtue of their covenant-relation to him, as long as they observed the terms of that covenant. Another high authority derives the word from a root denoting *blessed*, according to which Jeshurun would mean Israel as supremely happy and prosperous.

JESSAMINE, a s.e. central co. of Kentucky, bounded on the s. by the Kentucky river, and intersected by the Kentucky Central railroad; 250 sq.m.; pop. '80, 10,864. The surface is undulating, the soil fertile; productions: wheat, rye, Indian corn, oats, butter, and wool. Co. seat, Nicholasville.

JESSE, JOHN HENEAGE, 1815-74; b. England; son of the naturalist, Edward Jesse. He wrote numerous works illustrating periods in English history, all of which are held in repute. These include: *Memoirs of the Court of England during the Reign of the Stuarts*; *Memoirs of the Court of London, from the Revolution in 1688 to the Death of George III.*; *George Selwyn and his Contemporaries*; *Memoirs of the Pretenders and their Adherents*; etc.

JESSUP LAKE, 12 m. s. of Enterprise, Orange co., Florida; the seat of a colony of the same name, in the midst of a fertile and beautiful country. The water of the lake is pure and clear, upon a sandy bottom, and fish and game birds abound. The outlet is at St. John's river.

JESUITS (*ante*). The religious instructors of the first Catholic settlers of Maryland were Jesuits who came with lord Baltimore from Europe. John Carroll, born in Maryland, while receiving his education in France became a member of the society of Jesuits,

and was with some other Americans completing his studies when the order was suppressed. At the commencement of the American revolution he returned to the United States, and after the establishment of peace he was appointed vicar-general. The progress of the Jesuits in the United States since that time has been rapid. They are divided into two provinces, those of Maryland and Missouri, and several missions. The province of Maryland has establishments in Maryland, Virginia, Pennsylvania, Massachusetts, and the district of Columbia. The province of Missouri has establishments in the dioceses of St. Louis, Cincinnati, Chicago, and Milwaukee. The mission of New York, founded by the province of France, is now independent, and has establishments in the state of New York, Canada, and the Indians of lake Superior. The province of Germany has a mission which operates among the Germans of New York and Ohio. The mission of New Orleans, established by the province of Lyons, has several monasteries and colleges in New Orleans and Mobile. The provinces of Naples and Turin have numerous missionaries in Colorado, New Mexico, California, and among the Rocky mountain Indians. The colleges of the Jesuits in the United States are: St. John's, Frederick, Md.; Loyola, Baltimore; St. Louis university, St. Louis, Mo.; college of the Immaculate Conception, New Orleans; St. Charles's, Grand Coteau, La.; Spring Hill, Alabama; St. Joseph's, Bardstown, Ky.; Gonzaga, Washington, D. C.; St. Ignatius college, San Francisco; Santa Clara, Cal.; St. Joseph's, Philadelphia; St. John's, Fordham, N. Y.; St. Francis Xavier, New York; college of the Holy Cross, Worcester, Mass. The Jesuits in the United States in 1874 numbered 1062.

JESUP, MORRIS KETCHUM, b. Conn., 1830; has been a member of the New York chamber of commerce, president of the Five Points house of industry and of the young men's Christian association, and manager of the Presbyterian hospital. He is a public-spirited citizen of New York, one of a class devoting much time and thought to the advancement of charitable enterprises and the support of benevolent institutions.

JESUS CHRIST (JESUS, *ante*), the name given in the New Testament to the son of God incarnate (see INCARNATION), Jesus being the Greek form of the Hebrew Joshua, signifying Jehovah the Savior, and Christ the Greek translation of the Hebrew Messiah, signifying the anointed. Matthew's gospel gives a table of his human descent, traced from Abraham and David to Joseph, the husband of Mary; Luke's table, reversing the order, begins with Joseph and ascends to David, Abraham, and Adam, as created immediately by God. Both evangelists give accompanying statements, involving the truth that Jesus was not Joseph's son (Matt. i. 18-25; Luke i. 26-35: ii. 33, 34: iii. 23). The fact that these tables contain different names from David to Joseph has perplexed commentators and others who have sought to harmonize the statements. The limits of this article permit a reference only to two of the many suggestions that have been made: 1. That while Matthew gives the genealogy of Joseph and mentions in each case the actual father, Luke's table contains Mary's ancestors. This view is consistent with the language which Luke employs. If Mary was the daughter of Heli, Joseph was by marriage his son. And that Mary's genealogy should be given seems reasonable and even necessary in order to show that Jesus was actually descended from David: only his legal descent from him being shown by Joseph's genealogy in Matthew's account. 2. The chief importance of these tables was, at the beginning, in order to satisfy the Jews that Jesus was the son of David. They, when the gospels were first published, were much better able to judge concerning the accuracy of the tables than we are now; and there is no evidence that they impugned it or denied that Jesus was the son of David. For other nations, and at this day, when the truth of Christianity and the Scriptures is attested by so many proofs, it is sufficient to keep in mind that these tables were probably family records, which, in the nature of the case, were likely to be true, and may therefore be accepted as such, even when, in our ignorance, they cannot be explained. The divine conception of the human nature of Jesus is the central fact of Christianity as God's salvation for mankind. As such, it needed to be fully proved; and God's proof of it was addressed by special revelation to the two persons most directly and mutually concerned; to Mary before it occurred, and to Joseph afterward. Both needed to be divinely assured of it, that their peace and welfare might be secured, and that they might become the two witnesses by the record of whose united testimony the truth should be certified to all the world. The fact having been thus proved and the testimony recorded, no additional mention of it is afterwards found in Scripture; yet all the New Testament is in harmony with it and implies it. The birth of Jesus at Bethlehem, fulfilling Micah's prediction made 700 years before, was in a room occupied by dumb animals outside of the crowded khan. Yet it was heralded by Gabriel to the shepherds and by the song of the heavenly host. His presentation in the temple was among the children of the poor, yet it was signalized by the benedictions and prophecies of Simeon and Anna. The star seen by the eastern magi guided them with their homage and offerings to his feet. The transient flight into Egypt afforded him refuge during the little that remained of Herod's cruel and criminal career. His presence in the temple when 12 years old, the age at which a Jewish child became "a son of the law," remarkable at the time for his questions and answers that astonished the learned teachers in the midst of whom he sat, was yet more grandly illustrated to future ages by the one recorded utterance of his childhood which it occasioned: "Why did you have to seek me? Did you not know that it was neces-

sary for me to be in the places and among the affairs which belong to my Father?" This sentence marked his consciousness of the higher nature which glowed within him, and of his earthly work. It contains the germ of the character and life ascribed to him in the gospels, which are without inconsistency or imperfection in thought, word, or deed. Of his residence in the seclusion of Nazareth three facts are recorded: his subjection in his youth to Joseph and Mary; his progress in wisdom and stature and in favor with God and man; and his occupation in early manhood as "a carpenter." The way for his public ministry was prepared, as prophets had foretold, by the brief mission of John the baptizer. His baptism at the Jordan, administered by John in compliance with his own direction to do it promptly, was followed by the baptism of the Holy Ghost and the attestation from heaven, "This is my beloved Son." His special temptations in the wilderness represented several of the chief classes of temptations to which mankind are liable: to seek sustenance desperately in doing wrong; to be presumptuous instead of submissive; and to aim at worldly success by yielding to Satan or any other the worship and service due to God alone. His public ministry in Jerusalem was introduced and closed with similar symbolic acts of cleansing the temple by driving out the traders in animals and money who had gradually established themselves in its courts. At the first, when the Jews asked him for a sign to justify his course, he pointed them onward to the end, when his resurrection from the dead would vindicate his claim "Destroy this temple [his body], and in three days I will raise it up." At the last, when they asked for his authority, he pointed them back to the beginning of the proofs that the kingdom of God was at hand: "The baptism of John, was it from heaven or of men?" The mighty works which he wrought were not violations of the laws of nature, but exercises of power in the various departments of nature through a superhuman administration of its laws—such superhuman administration being the surest, mightiest, most fundamental law in nature. He turned water into wine; so does he habitually, throughout the vineyards on a thousand hills by the chemistry of earth and sky, turn water into the blood of the grape: he stilled the winds and waves on the sea of Galilee; so does he make the storm a calm on the broad oceans of the world: he multiplied five loaves for 5,000 men; so does he year by year, in myriads of harvest fields, multiply grain into food for man and beast: he healed diseases through all Galilee; so does he maintain health-giving and healing processes in every land: he gave limbs to the maimed; so does he give them to the millions who, consequently, are not destitute of them: he conferred sight upon the blind; so has he conferred it on all who are not blind: he restored life to the dead; so has he imparted it to the living, all of whom once were without it: he cast out evil spirits, suffering them not to speak; so are they everywhere subjected to his will. The works of which a particular account is given in the gospels are only specimens of a much larger number, some estimate of which may be formed from three general statements, all relating to the beginning of his public life: in Capernaum, "all that had any sick with divers diseases brought them to him, and he laid his hands on every one of them and healed them;" "he went about all Galilee, healing all manner of sickness and all manner of disease;" "his fame went throughout all Syria, and they brought unto him all sick people that were taken with divers diseases and torments, and those that were possessed with devils, and those that were lunatic, and those that had the palsy, and he healed them." The teaching of Jesus announced a pure and perfect morality, in the midst of abounding corruption and of merely external righteousness; it proclaimed the law of love to others, instead of selfishness as the moving spring of human action; revealed the living God as the Father of mankind; and foretold the resurrection of the dead, to be followed by the judgment and by the award of eternal life and eternal death. At the beginning of his ministry the sermon on the mount was spoken, which has become the standard of morality throughout Christendom; and after the three years and a half which, so far as can be judged, was the duration of his public course, had witnessed his strenuous activity in instructing all classes of the people, in cities, villages, and desert places, the last day of his teaching seems to have surpassed any other, even of his life, in the number, variety, and greatness of its themes. Beginning early in the morning and continuing far on into the evening, he drew lessons from the blighted fig-tree; spake the parables of the two sons, the husbandmen, and the marriage of the king's son; answered the hypocritical question of the Pharisees and Herodians, the scoffing question of the Sadducees, the earnest question of the scribe, and added his own silencing counter-question concerning the Messiah; pronounced the terrible denunciations against the scribes and Pharisees, and the doom of Jerusalem; gave his estimate of the comparative value of offerings to the Lord; received the Greeks, who sought admission to him, as representatives of Gentile nations; foretold the destruction of the temple, the close of the Jewish dispensation, and the end of the world; spake the parables of the virgins and the talents; and closed all with the prediction that the remembrance of Mary's offering should accompany the preaching of the gospel throughout the whole world. A large part of the ministry of Jesus was around the sea of Galilee, the shores of which, as a microcosm, were crowded with people of many lands. This was the beginning and the emblem of the advancement which his teaching and his living power have since made. The chief work of his disciples was, for centuries, around the Mediterranean, then the center of empire and civilization. The third advance of Christianity was along the shores of the Atlantic, on which the nations of western

Europe and their colonies were and are the most influential portion of the world. And now Christ's work is advancing also on both shores of the still wider Pacific. The sinless character of Jesus was manifested in a life which, while perfectly free from self-seeking, was actively exerted in beneficent work, was ennobled by love to those who hated him, and irradiated by filial obedience to God. His claim to be the anointed Son of God was advanced to his disciples, to Nicodemus, to the woman of Samaria, in gatherings of the people, among the chief priests and Pharisees, and, most solemnly of all, before the great council of the nation who, because of it, condemned him to death. And this claim was attested not only by his sinless life, his mingled meekness and majesty of manner, and his mighty works, but also by audible acknowledgments from heaven, at his baptism, at his transfiguration, and just before his crucifixion; and, most powerfully of all, by his resurrection from the dead and the consequent establishment and advancement of the world's faith in him from age to age. The crucifixion of Jesus is a part of Jewish history, and is as certain as any other event in that; it is a part of Roman history, and is as certain as any other event in that; it is as certain as that the history of the Jews was crossed by that of the Romans. And the fact of his crucifixion being sure, all Scripture teaching concerning him is established; for the Scriptures written before it led to it; and those written after it were its results, followed, as it was, by his resurrection on the third day. "It marks also the boundary between ancient and modern days. From the hour when Christ died began the death-knell to every Satanic tyranny and every tolerated abomination; and from that hour holiness became the ideal of all who would name him as their Lord."

JESUS, SOCIETY OF THE SACRED HEART OF, is virtually the society of Jesuits under another name. At the close of the 18th c. the Jesuits, in view of the suppression of their order, established other orders which would continue their peculiar work under a new name and form. The principal of these were the society of the Sacred Heart of Jesus established in Belgium in 1794, by the ex-Jesuits De Broglie, Pey, and Tournély, and the Baccanarists or *Fathers of the Faith of Jesus*, established in Italy in 1798 by Baccanari, a layman of Trent, aided by several ex-Jesuits. In accordance with the desire of pope Pius VII., these two societies united in 1799, and made considerable progress in Italy, France, Germany, and England.

An order of women by the same name and with similar aims was founded in 1800 at Paris, and approved in 1826 by Leo XII. Its first leader was the maiden, Barat. Engaging zealously in the education of young women, they are regarded with favor, and flourish, not only in Roman Catholic but Protestant countries. They have more than 100 establishments in Europe, and exist also in America and Africa.

JESUS, SOCIETY OF. See JESUITS.

JETER, JEREMIAH BELL, D.D., 1802-79; entered the Baptist ministry in 1822 in Virginia, and, except during a brief period about 1849, when he was settled in St. Louis, Mo., continued to preach in that state, as pastor of a church in Richmond. He was a writer of ability, was senior editor of the *Religious Herald*, published in Richmond, and the author of a number of works, including *Campbellism Examined*; *Memoir of Rev. M. W. Clifton*; *Life of Mrs. Henrietta Shuck*; etc.

JETTY, an embankment or pier extending into the sea, and built of earth, stone, fascines, timber, or other suitable material, either singly or combined. Jetties are applied to rivers and tidal harbors, to increase the depth over bars by narrowing the channel, and thus concentrating the current. Jetties have been constructed at the mouths of many European rivers, as the Oder and Danube, and the entrances of many harbors, as Boulogne, Dunkirk, and Calais. The Danube jetties increased the depth from 9 to 20 ft. and transformed it into one of the best harbors on the Black sea. The great erosive power of water causes rivers to transport vast quantities of sediment, which are deposited at the mouths, forming the delta. Capt. Eads says that the suspended matter carried by streams depends upon the rapidity of the current, modified by the depth; and that the relation between the amount of sediment transported and the velocity is very sensitive, a decrease in velocity causing a deposition of suspended matter. Bearing in mind that, other things equal, the velocity increases as the area of the river-section diminishes, the problem is to construct barriers which shall decrease the area. The hydraulic engineer bases his plans upon a careful survey of the delta, and upon a knowledge of the amount of water discharged by the river in a unit of time, and the variations of water-line at different seasons, the areas of sections, the location of bars, the direction of prevailing winds, the effect of storms, etc. The bars existing at the mouth of the Mississippi river have been a serious impediment to commerce; various plans have been suggested for the maintenance of a channel. Dredging proved ineffectual. This river and its affluents drain an area of nearly 1,250,000 sq.m.; the yearly rainfall of the basin is 30.4 in.; and the average discharge, 21,300,000,000 cubic ft. of water per year, or 675,000 cubic ft. per second. Capt. James B. Eads first proposed the application of jetties to the Mississippi river, presented the scheme to congress, and March 3, 1875, was authorized to undertake the work at the risk of himself and associates. In the face of much opposition he brought the energy of the river to bear upon the great bar of sand and silt separating South pass from the deep water of the gulf of Mexico, thus increasing the depth from 7½ to 30 ft. and achieving a complete success. The merchants of New

Orleans have arranged for a visit to their port by the Great Eastern, and direct exportation from the river-basin has been stimulated. Acts of congress awarded Capt. Eads for the expense of the work, \$4,250,000—payable in installments as different depths and widths of channel should be obtained; \$1,000,000 for his services, to be paid when it is known that the jetty works duly maintain the channel; and \$100,000 yearly for 20 years, to repair the works and preserve the depth. The depth between jetties required by contract is 30 ft.; width of channel, 350 ft.

Description of the Mississippi Jetties.—The river divides into three principal mouths or passes; the jetties are at the entrance to the middle or South pass. The east jetty extends from Eastside Landsend, at or near East point signal, along the edge of the old bar and into the gulf, a distance of 11,800 ft.; its course is a broken and a curved line deflecting at the gulf end 1700 or 1800 ft. to the right of the first alignment on the shore end prolonged. The west jetty is 1000 ft. w. of the east jetty, parallel to it, and, starting opposite a point 4,000 ft. from the head of the east jetty, extends 7,800 feet. The Kipp dam, 600 ft. long and perpendicular to the west jetty at its head, joins it with the west shore; its construction is like that of the jetties. The jetty lines were established by driving piles; permanent cross sections were made 500 ft. apart by locating sighting points on and behind each jetty in the sections and in diagonal sections; and periodical soundings were made which furnished data for the construction of profiles showing the changes in the channel. The chief constructive materials used in the jetties are willow mattresses, stone, palmetto cribs, and blocks of concrete. The boughs are brought from a crevasse 23 m. above the jetties, where there is a heavy growth of willows; they are obtained with difficulty, as the mud is covered, in the flood season, with a foot of water. The mattresses are constructed upon inclined planes, having a rise of 1 in 10; the lower end rests in the water, while the upper is 6 ft. above. The mattresses vary in width from 20 to 40 ft. or over; they are generally 100×40 feet. Longitudinal strips, $2\frac{1}{2} \times 6$ in., are first laid on the ways, $4\frac{1}{2}$ ft. apart; across these a layer of willow boughs, 6 in. thick, is placed, with the switch ends extending 2 or 3 ft. beyond the outside strips; a second layer, at right angles to the first, is placed next above; and so on, till the required thickness, generally 2 ft., is attained. Finally, transverse strips are fastened to the bottom strips with hickory pins. The mattress is then launched, and towed to its destination, where it is tied to the piles, loaded with stone, and sunk to its position on the river bed or upon other mattresses. The bottom row of mattresses was sunk throughout the entire length of the jetties before beginning the second layer. The placing of a single mattress was always accompanied by a deepening of the channel somewhere, and, what was still more remarkable, a deposit of sand abutting against the mattress began at once on the sea side. In this manner the jetties have been greatly strengthened, while w. of the west jetty hard fine sand has been deposited, extending from the jetty to outlying reefs and shoals, and reducing the depth at high water from 9 ft. to a few inches. Capt. Eads and assistants, guided by experience, have modified their plans. A section of the finished jetty, as originally built, discloses a pile at one side; a number of mattresses, separated by layers of stone, and diminishing in width from the bottom to tide level, abut against the pile, while, upon the river side, the steps formed by the mattresses are covered with stone forming a slope. After the action of the water had produced a slope in the river-bed conforming to the new cross-section, another mattress was sunk on the slope adjoining the foundation-mattress and also covered with stone. The surface of the jetty above sea-level was covered with stone, and crowned with dimension-stone laid dry.

The flow of water between the jetties has been increased by temporary constructions, such as sheet piling and wooden aprons; a dam turns the water from Grand bayou into the pass; and dikes at the head of the pass still farther increase the flow. Max E. Schmidt, C.E., one of the assistant engineers, says: "There were three destructive elements to be overcome by these works: 1. The abrading power of the river current; 2. The momentum and impact of the waves; 3. The undermining power of the waves. With a full appreciation of the magnitude of these forces, no design was made, nor was any detail allowed to be put into the works, which did not strictly adhere to the following practical laws: 1. That a broad and elastic foundation will prevent undermining; 2. That proper slopes will resist impact of the waves; 3. That tight work will stop leakage; and 4. That work maintained at a uniform height will obstruct the escape of water by overflow." Noting in their order how far these laws have been fulfilled, we see, 1. That the two rows of mattresses, which have sunk into the bottom till a firmer strata was reached, afford a secure foundation; 2. Where the jetties pierce the bar, deposits on the sea side give ample protection, while, on the river side, wing dams—projecting perpendicularly 150 ft. from the jetties—stopped the current and caused sediments to be deposited, producing a gentler and more resisting slope, with a simultaneous deepening of channel: at the gulf ends of the jetties and extending some distance towards shore, the slopes have been improved by sinking cribs of palmetto wood at both sides of the mattresses, and then building up the desired slope with stones. 3. The compression of the mattresses by the weight of stone and the infiltration of sand has done much to diminish the leakage, but more time is needed to completely fill interstices, and the use of gravel and broken stone near the jetty top will greatly assist. 4. The shore jetty sections are now maintained above high-water mark without difficulty. Upon the summit of the gulf sections a continuous embankment of concrete, varying in dimensions, but usually

12 ft. wide and 3½ ft. thick, has been constructed for a distance of 3,800 ft. upon the east jetty, and 2,800 ft. upon the west jetty. The concrete was molded in blocks weighing from 25 to 72 tons, and these were cemented together afterwards, forming one solid stone of great resisting power on each jetty, and aiding in the diminution of leakage by compressing the mattresses; it is hoped that the weight will cause the elastic limit of the willows to be reached, thus increasing its impermeability. A massive parapet is to surmount the concrete, the time of construction at any point depending upon the subsidence of the jetties. July 10, 1879, capt. Eads reported the completion of the jetty work; depth through the jetties over 30 ft.; at the head of the pass, 26 ft.—measurements being taken with the river at its lowest stage. The improvement of harbors by jetties depends upon the general principles cited as applicable in the great works at the mouth of the Mississippi; and many harbors on the great lakes and elsewhere in the United States have been thus made more accessible.

JEVONS, WILLIAM STANLEY, b. England, 1835; grandson of William Roscoe, the eminent historian, educated at University college, London, and made a fellow of his college in 1862. He held a position in the Sydney (Australia) mint, 1854-59. In 1866 he received the appointment of professor of logic and mental and moral philosophy, and Cobden lecturer in political economy in Owen's college, Manchester; in 1872 was elected a fellow of the royal society; and in 1876 received the honorary degree of LL.D. from the university of Edinburgh. During the latter year he was appointed professor of political economy in University college, London. He has written *The Principles of Science—a Treatise on Logic and Scientific Method*; *Theory of Political Economy*; and *Money, and the Mechanism of Exchange*.

JEW, WANDERING. See WANDERING JEW.

JEWEL or JEWELL, JOHN, D.D., 1522-71; an English clergyman, largely concerned in the religious troubles of the reigns of Mary and Elizabeth. At the accession of the latter queen he assisted in the re-establishment of the Protestant religion, was made bishop of Salisbury, and was an eloquent preacher. He published many controversial works, and his famous *Apologia Ecclesie Anglicane* was by Elizabeth's orders placed in every church in the country, and has ever since been looked upon as a classic of the Anglican communion.

JEWELL, a co. in n. Kansas, on the border line of Nebraska; 900 sq.m.; pop 207. The surface is rolling prairie-land, with fertile soil, affording good pasturage. It is watered by branches of the Republican and Solomon rivers. Co. seat, Jewell City.

JEWELL, MARSHALL, b. N. H., Oct. 20, 1825. He was bred to the tanning business, but left it to engage in telegraph construction in the south-western states. In 1850 he established himself in business in Hartford, Conn., as a manufacturer of leather belting, and was very successful. His ability, public spirit, and warm interest in public affairs, gave him prominence as a private citizen; and his hearty support of the general government during the war of the rebellion drew special regard to him as a man qualified by his energy, integrity, and patriotism for the public service. He was elected governor of Connecticut in 1869, 1871, and 1872. In 1873 he was appointed minister to Russia, where he is said to have made himself master of the secret of making Russian leather. He returned to the United States in 1874 to enter the cabinet of gen. Grant as postmaster-general. In consequence of a misunderstanding with the president he resigned before the expiration of the latter's second term, returning to his home in Hartford. In 1880 he was chosen chairman of the national committee of the republican party, in which capacity it became his duty to direct and supervise the campaign for the choice of a president of the United States—a task which he fulfilled with great energy and success.

JEWELRY (*ante*), MANUFACTURE OF, in the United States. The wearing of jewelry was earnestly discountenanced in the New England colonies as a practice savoring of worldly pride and ostentation, and therefore hardly compatible with piety. This form of asceticism, though it had its root in religious feeling, was no doubt stimulated by the poverty of the times. Gold beads appear to have been exempt from the prevalent proscription, being cherished as heirlooms, and transmitted with pride from mother and daughter; and as the colonies became prosperous, it became more usual for the fortunate possessors of gold coins to hand them over to the goldsmith to be cast into rings or chains. In the colonies s. of New England the religious objection to wearing jewelry was not so much felt, but the demand for it was limited, and most of that which was worn was imported. The jewelers of the period sometimes made plain rings and chains, but the manufacture of jewelry as a business was unknown in this country until some time after the war of independence. It is believed to have been first introduced in Newark, N. J., somewhere between 1790 and 1795, by Epaphras Hinsdale, who died in 1810, and was succeeded by Mr. Taylor, one of his workmen, who greatly enlarged the business and invented new machines for the prosecution of the work. Somewhere about 1800 the business was introduced in Providence, R. I., and was rapidly extended there. Mr. Hinsdale and Mr. Taylor had made all their articles of solid gold, but the Providence manufacturers soon began to make what is known as "filled work," the face of the jewel being stamped out from a thin ribbon of gold, and the shell filled with a solder of some baser metal, and then covered on the back with a thin layer of gold of an inferior quality.

Of course this sort of work, which was scarcely distinguishable by an untrained eye, could be sold for much less than work of solid gold, and therefore it found a ready market. In 1812 Mr. George F. Downing began to manufacture various articles of jewelry in Newark, and in 1821 he removed to New York, where the manufacture of filigree jewelry had been introduced in 1812 by a Frenchman named La Guerre. From this time onward the business rapidly increased, until it met a check in the financial revulsion of 1837. With the return of national prosperity it revived, and was immensely increased by the discovery of gold in California. It met with another check in the disasters of 1857, and had hardly recovered when the war of the rebellion gave it another blow; but it was revived and immensely expanded when the country was flooded with paper money, and fortunes began to be amassed suddenly. Diamonds, which before that time had been rarely worn, were now in great demand, and the setting of them, previously confined to Europe, became a recognized branch of the jewelry manufacture in the United States. Imitation jewelry was also extensively manufactured to meet the wants of the poorer classes, who were infected by the fashion of the time. The trade in this spurious stuff was immense, yielding an aggregate profit of millions of dollars to those engaged in it. The annual production of jewelry in this country in 1850 was estimated at a little less than \$2,000,000. In 1860 the number of establishments had increased to 463, employing a capital of more than \$5,000,000, giving employment to about 6,000 persons, paying wages to the amount of \$2,600,000, and producing annually goods valued at about \$10,500,000. The productions of hair jewelry was a separate branch of business, and the goods annually produced amounted to somewhat less than \$15,000. Lapidaries' work, which was carried on in 7 establishments, was valued at about \$37,000 yearly. In 1870 the number of establishments was 681, employing over 10,000 persons, using capital amounting to about \$12,000,000, paying wages to the amount of nearly \$4,500,000, and producing goods valued at over \$22,000,000. The great centers of jewelry manufacture are New York, which in 1870 had 198 establishments, and produced goods valued at \$9,595,700; Providence, with 74 establishments, and products valued at \$3,086,846; Philadelphia, 53 establishments, \$1,583,741; Boston, \$338,000; Springfield, Mass., \$370,000; Cincinnati, \$338,000; San Francisco, 18 establishments, \$475,562; Bristol co., Mass., 33 establishments, \$1,510,925. The financial revulsion of 1873 depressed the business greatly, but it is now again becoming prosperous.

JEWETT, CHARLES COFFIN, 1816-68; educated at Brown university and Andover theological seminary. Acted as librarian at Andover, and made a catalogue of Brown university library, of which institution he was also librarian and professor of modern languages, 1843-48. He was afterwards librarian of the Smithsonian institution, and from 1858-68 superintendent of the Boston public library. Mr. Jewett was the first of the modern school of American librarians, and his *Notices of Public Libraries in the United States of America*, 1851, and suggestions of a new method of cataloguing libraries, have been of great service. He was one of the earliest, if not the first in this country, to adopt the card-cataloguing system to public libraries.

JEWETT, MILO PARKER, LL.D., b. Vt., 1808; educated at Dartmouth and Andover, and occupied a chair in Marietta college, Ohio, for three years from 1835. Having been a Presbyterian, he changed to the Baptist church, and in 1861, on the foundation of Vassar college for women, he was made its first president, a position which he resigned in 1876. He was among the first to introduce the common-school system into Ohio and Alabama. He wrote *The Mode and Subjects of Baptism*, which passed through many editions.

JEW-FISH, a common name of several species of the *serranidæ*, which sometimes attain a weight of several hundred pounds. A species caught along the Florida coast, called the *promicrops gnasa*, sometimes weighs as much as 700 lbs. The jew-fish of California is the *stercolepis gigas*.

JEWSBURY, GERALDINE ENDOR; b. England, 1821; sister of Maria Jane; a writer of novels and children's books. Among her works are *Zoe: the History of two Lives*; *The Half-Sisters*; *Marian Withers*; *Constance Herbert*, etc. Her writings have been favorably reviewed by *Blackwood* and the *London Examiner*.

JEWSBURY, MARIA JANE, 1800-33; b. England; contributed articles to the *London Athenæum* and other periodicals, and wrote a number of miscellaneous works, including the following: *Phantasmagoria, or Sketches of Life and Literature*; *Letters to the Young*; *Lays of Leisure Hours*; and *Three Histories*. Christopher North commended Miss Jewsbury in *Noctes Ambrosianæ*. In 1833 she was married to the rev. William Fletcher, a missionary, whom she accompanied to India. On her arrival at Bombay she fell a victim to the epidemic of cholera then raging.

JEYPOOR, one of the 19 native states of Rajpootana, India, anciently known as *Amber*; 150 m. long, 140 m. broad; 15,251 sq. m.; pop. 494,598. With the exception of some insulated peaks and clusters of hills in the n. and north-western parts, the surface is level. The population is composed of various races, the most numerous being the Minas, supposed to be the aboriginal inhabitants. The next, about equal in number, are the Jats, who are extensive landholders and skillful agriculturists. The Brahmins

are more numerous in proportion to the population than in any other part of Rajpootana. The ruling class are the Rajpoots, who, though less numerous than the Minas and Jats, are able to muster 30,000 fighting men. The less important tribes are the Banias, Dhakurs, and Gujurs. The revenue, exclusive of the possessions of the feudal chiefs, is estimated at £458,395. By treaty this country became tributary to the East India company in 1818. In 1842 a large arrear of tribute, which had accumulated, was remitted, and the annual tribute fixed at £40,000. In consequence of intrigue and corruption in the administration a British force was sent to Jeypoor in 1835 to redress existing wrongs, which resulted in restoring order and securing the collection of the revenue. The prince having been poisoned, a regency was appointed during the minority of his successor, and the government was administered with justice and efficiency. The young prince having been initiated into public business, the British authorities, recognizing his fitness for the duties of his station, committed to him in 1851, when 18 years of age, the reins of government. Jeypoor, the capital of the country, is 850 m. n.w. from Calcutta; lat. 26° 56', long. 75° 55'.

JEZÉBEL, daughter of Ethbael, king of Tyre and Sidon, and wife of Ahab, king of Israel. Through her influence over her husband she induced him to permit the worship of her country's idols, and finally to depart entirely from the worship of Jehovah. A woman of force and much shrewdness, combined with unscrupulousness, she succeeded in withdrawing the Israelites from the true religion, until, it is related, that there remained but 7,000 of them who had not swerved. After the death of Ahab she maintained the same control over her son Jehoram, who was at last killed by Jehu, who then commanded the death of Jezébel, and she was flung from the window of the palace to the ground beneath, where the dogs devoured her.

JEZIRAH, or BOOK OF CREATION, one of the cabalistic books of the Jews containing a mystical account of the creation of the universe. It is divided into six chapters, which are subdivided into sections. The age of this work is unknown. The Jews claim it to be of divine origin, intrusted by the Lord to Abram, and by him handed down to the learned rabbi Akiba. The conclusion of modern scholars is that it was composed by the Jewish schools of Egypt in the time of Philo Judæus about a century B.C. The Jezirah has been published, with five commentaries (1562), with a Latin translation and notes (1642), and with a German translation and notes (1830).

JEZREEL, a t. of Issachar, which contained a palace of the kings of Israel; deserted by the court after the death of Jezébel. In the time of Eusebius and Jerome it was known under the names of Esdraela and Stradela. In the history of the crusades we meet with it as Parvum Gerinum, the Zerin of the Arabs. Under the latter designation the town stands on a rocky declivity, between the mountains of Gilboa and Hermon, but contains only about 20 ruined huts and a few inhabitants. The original city, in the plain of Esdraelon, is described as having been very beautiful, and the palace erected by Ahab as a marvel of architecture.

JHYLUM, JELUM, or BEHUT. See JHELUM, *ante*.

JINN, supernatural characters occurring in the Arabian mythology, and supposed to be the children of fire. They were said to be under the government of a race of kings named Suleyman, to one of whom was ascribed the honor of having built the pyramids. There were both good and evil jinns, the one class hideously ugly in appearance, the other beautiful. They were supposed to have the power of manifesting themselves to human beings in the form of serpents, dogs, or other creatures, or of appearing in the guise of human beings, or of becoming invisible at pleasure.

JIONPOOR, or JOANPORE, a district of Hindustan, in the North-West Provinces, between 26° and 27° n. lat.; bounded n. by Oude, n.e. by Azimghur, e. by Ghazeepoor, s. by Benares and Allahabad; 1552 sq. m.; pop. 798,503. It is well watered, extremely fertile, under good cultivation, and covered with forests. The inhabitants are Hindus and Mohammedans, the former greatly preponderating. With one tribe of the Hindus female infanticide prevailed until abolished by the influence of the British government. The district came into the possession of the British in 1775, and forms part of the Benares zemindary.

JIONPOOR, or JOANPORE, a t. in a district of the same name in the North-West Provinces of Hindustan. It was anciently the capital of an independent principality. It is on the river Goomty, 42 m. from Benares, 147 m. from Lucknow. Sultan Feroz III. of Delhi, having ordered a Hindu temple to be demolished, erected in 1370 around its ruins a fort of solid stone, which he named after his uncle and predecessor Joana. He sent numerous artificers and others to inhabit the new city, which was completed in twelve years. Khuaje Jehan, who became emperor after the subversion of the empire of Delhi by Tamerlane, made Jionpoor the capital. He was succeeded in 1399 by his son Moharic Shah, who in a prosperous reign of 40 years greatly strengthened and improved the city and fortress, and Jionpoor became one of the most renowned cities of Hindustan for religion and learning. It was again annexed to the empire of Delhi in 1468. Many of the mosques and colleges built at that time still exist. The fortress was often taken in the wars between the Afghans and Moguls, and much dilapidated, but was thoroughly repaired about 1570 by the governor of Bengal. The famous bridge of Jionpoor, built

280 years ago, still stands, a monument of ancient splendor and architectural skill. In 1793 it was submerged during the rainy season without any damage from the current. The town around the fort has some brick houses and a large bazaar. Many ruins of tombs and mosques are found in the vicinity of the city. The Jamai Musjed is a very handsome mosque built of stone, and is in good condition.

JOAB, a nephew of king David, was a distinguished warrior in the days of Saul. David gave him command of his entire army. He was an utterly unscrupulous general, and when David tried to remove him from his position in favor of Amasa, he plunged his sword into the heart of the latter in the very act of embracing him. He joined Adonijah in his conspiracy, and was at last taken by Solomon, although he had sought refuge at the altar in the tabernacle, and was put to death.

JO'ACHIM, THE PROPHET, 1130-1202; Abbot of Floris; b. Celico, Italy; a Cistercian monk, founder of the monastery of Floris. He was held in high repute even by popes and princes. His followers revered him as a prophet. He denounced severely the corruption of the Roman hierarchy, and sought to effect a reformation. Some of his views were peculiar. He taught that the Christian era would close in 1260, followed by a new era under another dispensation. His treatise called the *Everlasting Gospel*, in which he advocated this tenet, was condemned by the Lateran council in 1215, and again by the council of Arles in 1260, which pronounced all his followers heretics. In the middle of the 13th c. he had many adherents called Joachimites. He wrote many works, predicting in some of them the downfall of the papacy. His life was written by Gregory di Lauro.

JO'ANES, VICENTE, 1523-1579; b. Spain; studied in Rome and settled in Valencia, where he founded a new school of painters. He was one of the most distinguished Spanish painters of his time. His subjects were exclusively religious, and many of his works are in the churches and convents of Valencia. His great pieces are "Baptism of Christ," in the cathedral of Valencia; 6 pictures of the "Life of St. Stephen," in the palace of Madrid; and the "Holy Supper," in the Louvre.

JOANNA I., 1327-1382; Queen of Naples; daughter of Charles, duke of Calabria, and granddaughter of Robert of Anjou; was married in 1334 to her second cousin, Andrew of Hungary, who in 1345 was murdered by conspirators instigated, as was believed, by Joanna. His brother, Louis the great of Hungary, invaded Naples to avenge his death, and she fled to Avignon, the residence of the popes; but on the mediation of the pope she was restored to the throne in 1352. In the schism between the popes Clement VII. and Urban VI. she took sides with Clement, when, at the instigation of Urban, a rebellion occurred in Naples; she was captured by Charles Durazzo, imprisoned, and delivered to the king of Hungary, who had her put to death in 1382.

JOANNA II., 1370-1435; Queen of Naples, 1414-1435; a grandniece of Joanna I.; was married to William of Austria, and afterwards to Jacques de Bourbon count of La Marche. Her character was very dissolute, and her government disturbed by constant feuds and insurrections.

JOANNES, ISLAND OF. See MARAJO, *ante*.

JO'ASH, or JEHO'ASH, King of Israel, son and successor of Jehoahaz and grandson of Jehu, reigned B.C. 838-823. He was a courageous and strong king, but adhered to the idolatry that had been introduced by Jeroboam.

JO'ASH, or JEHO'ASH, about B.C. 884-837; King of Judah, son of Ahaziah and Libnah of Beersheba. On the death of his father, his grandmother Athaliah having massacred his brothers and usurped the throne, he was secreted by his aunt Jehoshebeth, the wife of Jehoiada the high-priest, and brought up by her in the chambers connected with the temple until his 8th year, when in a revolution Athaliah was slain, and Joash placed upon the throne. For several years, through the influence of the high-priest, he adhered to the worship of the true God; but after the death of Jehoiada, falling into idolatry, his kingdom was devastated by Hazael of Damascus, he was besieged in Jerusalem, and afterwards murdered in his bed by his servants, after a reign of forty years.

JOB, Book of (*ante*), is generally regarded as one of the most ancient in the world. An examination of it reveals several facts tending to the probability that it was written between the deluge and the calling of Abraham. 1. As it contains an earnest discussion concerning the method of God's moral government over men in this life, it seems probable that all the great facts, bearing on the question, which were known to have occurred would be adduced by some one or other of the speakers, on one side or other of the argument. The deluge, as one of such facts, is referred to. "Hast thou marked the old way which wicked men have trodden, who were cut down out of time, whose foundation was overflown by a flood?" But there is no reference to the history of Israel in Canaan, the journey through the wilderness, the judgments on Egypt, or the destruction of the cities of the plain. Why such facts were not employed in such a discussion seems difficult to explain, except on the theory that the book was written before they occurred. 2. The only form of idolatry referred to in the book is the worship of the sun and moon, generally regarded as among the earliest forms of idolatry. 3. The mode of divine worship practiced by Job was the patriarchal, in which the father of the

family was the priest, as Noah and Abraham were. This fact implies the great antiquity of the book, but does not decide whether it was written before or after Abraham. 4. The reason assigned for the trial to which Job was subjected appears much more forcible on the supposition that it was made at an early period of the world, when there had been few opportunities to decide the question by an appeal to observation and experience. 5. The book contains an unusual number of words of an Arabic cast. This, in the judgment of some, points to an early origin when the connection between Hebrew and Arabic was closer than at a later period. By others this inference is not allowed.

Against the theory that the book was written before Abraham, the tribal names of Job's friends may be urged. Eliphaz was a Temanite, and Bildad a Shuite. As Esau had a grandson Teman and Abraham a son Shuah, if Job's friends were descendants from them a date later than Abraham and Esau must be assigned to the book. But it is possible that there were men of the same names who lived nearer the flood. Job, it is said, was of the land of Uz. As a duke or chief of Edom, contemporary with Esau, had a grandson Uz, it might be inferred that the land received its name from him, and consequently that Job lived after Esau. But from earlier records it appears that Abraham had a nephew and Shem a grandson of the same name, so that the land may have been called after even the earlier of them. A similar possibility exists with regard to the other names. The Chaldeans and the Sabceans also are mentioned, but the origin of both may be traced back near to the flood.

The introduction and conclusion of the book contain brief narratives in prose, but the discussion which occupies the chief part of it is a poem of very high order both in sentiment and style. I. The introduction narrates Job's piety, wealth, and care for the religious welfare of his children. Satan, having insinuated that his piety was prompted by worldly motives, was allowed to try him; first by taking from him his property and children, and afterwards by inflicting on him severe physical suffering. All this he endured for a time without falling into sin. Three of his friends coming to condole with him, rent their garments when they saw him, wept over him, and sat down in silence seven days. At length driven, by the continuance of his severe trials, to the utterance of maledictions against the day of his birth, he ended also the silence of his friends. II. Eliphaz begins the discussion mildly, and with regret that he feels compelled to speak. Reminding Job of his wise and encouraging counsel to others in their afflictions, he expresses surprise that he sinks down under his own sorrows. He asserts that the righteous are never given up to suffering, but that, while the incorrigible are overwhelmed, God punishes also those whose uprightness is imperfect though sincere. He therefore exhorts Job to submit to the calamities which have come on him as the just punishment of his sins, and to hope that, through the mercy of God, all will yet be well with him. Job in reply avers that he has sufficient reason to complain, that his afflictions are too heavy to be borne, and that he wishes for death from the hand of God as the only relief. He complains of his friends as heartless in condemning him; compares them to a deceitful brook which mocks the thirsty traveler; reminds them that he has not sought their sympathy or help, yet assures them that if they have any just considerations to present he will patiently hear them. He then turns from them to God, lamenting the vanity and weariness of his condition, imploring relief, giving vent to the bitterness of his soul and asking that God will let him alone, will accept his confession, and forgive his sins. Bildad next speaks, roughly assuming that Job's children have been cut off because of their sins, and that Job himself, if he be upright and will seek the Lord, may have his sorrows turned to joy. Job replies that he admits all that has been said concerning the just government of God, but that men are too imperfect to merit his favor and too weak to endure his stroke. Yet, according to the comparative goodness which they can attain, he asserts his righteousness, and complains that God, judging him according to his own infinite holiness, treats him as a sinner notwithstanding all his efforts to do right. Again he bitterly laments his birth, and calls on God to let him alone for a little while that he may have some rest before he goes down to the grave. Zophar makes the third attack on Job, calling his defense senseless and false, telling him that his afflictions, overwhelming as they are, are less than his iniquity deserves; that if he will humble his heart, forsake his sins, and call on God, he may yet be restored to prosperity and peace; but that if he continue impenitent all hope of deliverance will be vain. As all the three friends have now spoken, Job replies, in cutting language, to them all, saying, "No doubt but ye are the people, and wisdom shall die with you." Yet he affirms that his knowledge is not inferior to theirs; yea, that they have uttered only commonplace things which everybody knows. Appealing to the air, the land, and the sea as full of the works of God, whose supremacy he acknowledges over all the affairs of mankind, and declaring his own readiness to submit his case to him, he charges his friends with having made false statements in their pretense of zeal for the divine government, and professes his determination to continue his trust in God even unto death. Then, addressing himself directly to God, he pleads with him to withdraw his hand from him and not to overwhelm him with his mighty power, as a tempest that puts forth its strength in crushing the dry stubble or a driven leaf. After this he closes his reply with a beautiful lamentation over the frailty of life. 2. The second division of the discussion Eliphaz, as before, begins. He charges Job with vanity, presumption, prayerlessness, arrogance, and craft. He vindicates the government of God, which, he

declares, deals with the wicked according to their character, sending on them disquietude of spirit in the midst of external safety, ruin in the hour of prosperity, and destruction when they think themselves strong. Job's reply condemns his friends severely as miserable comforters, complains irreverently against God as giving him up into the hands of the wicked, and breaking him with breach upon breach. He also asserts passionately his innocence, to which, he says, earth and heaven will both bear witness. Bildad's second address is increasingly severe on Job, treating all his arguments as vain and arrogant attacks on the government of God, and denouncing on him the terrible calamities which, he says, are manifestly the portion of the wicked. Job's answer to this cruel speech is from the depths of a sorrowful yet subdued spirit. He calls on his friends to remember that God has overthrown him, has shut up and darkened his path, has removed the crown from his head, and surrounded him with destruction; so that his brethren, kinsfolk and friends, his servants, and even his wife count him as a stranger, and little children despise him. Then with a pathetic appeal for human pity because God's hand is upon him, he passes the crisis of his distress, and springs up to a sublime confidence in God which pours the light of redemption on the scene. Conscious of the importance of what he is about to say, he looks eagerly around for some way of preserving it. "Who will write the words that now I speak? Who will engrave them on a tablet and cut them into the rock forever? For I know that my redeemer liveth, and at the latter day will stand upon the earth. Though this will be after they have destroyed even my skin yet, delivered from the flesh, shall I see God. I shall behold him on my side; mine eyes shall see him, and he will not be a stranger to me, even though my reins within me are consumed." 3. From this point the discussion becomes easier to understand. Job's friends, adhering to their theory that God deals with men in accordance with their characters, charge on him iniquity of conduct and of heart, which, they insist, must be as aggravated as his afflictions are great: while he, turning increasingly away from man, confesses the majesty, sovereignty, and justice of God; gives a grand description of wisdom as consisting in fearing the Lord and departing from evil; asserts his integrity in God's sight, and declares that if he will pronounce judgment in his case he will bind it as a crown of righteousness on his head. At length, the three friends having been silenced, a fourth takes up the argument—Elihu, the youngest of the company, who has listened in silence but with growing impatience to all that has been said. Displeased with his companions because they have not answered Job aright, and with Job because he has maintained his own righteousness, he calls on all to listen to him. While he agrees with much that has been advanced concerning the punishment of sinners in this life, he asserts, as a principle in God's government which none of the disputants have made prominent, that affliction is often sent on men for their profit that they may be turned from their evil purposes and humbled in their pride. The debate is closed by the Lord himself, answering Job out of the whirlwind and drawing from him the humble confession, "Behold I am vile; I have heard of thee by the hearing of the ear, but now mine eye seeth thee; wherefore I abhor myself and repent in dust and ashes." III. After this the condemnation of his three friends was pronounced; and Job having prayed for them, his own captivity was turned, and the Lord blessed the latter portion of his life more than he had its beginning.

JOBERT DE LAMBALLE, ANTOINE JOSEPH, 1799-1867; b. Lamballe; an eminent surgeon of Paris, surgeon at the hospital of St. Louis in 1830, and surgeon to the emperor in 1854. He was insane in the latter part of his life. His principal works are *Traité Théorique et Pratique des Maladies Chirurgicales du Canal Intestinal*, two vols.; *Traité de Chirurgie Plastique*; and *Traitement des Fistules vesico vaginales*. For the first of these he received 2,000 francs from the French institute, of which he was a member.

JOB'S TEARS, *Coix lachryma*, a corn-plant of India. It is a grass, sometimes rising to the height of 8 ft., with the stout habit of maize, to which also it is botanically allied; but the male and female flowers grow close together in spikelets, which are produced in axillary clusters. The name is derived from the tear-like form of the hard, shining, bluish-white seeds, which are sometimes made into bracelets and necklaces, and are also an article of food. This plant is cultivated to some extent in many parts of India, but it is one of the worst of the cereals. It has become almost naturalized in Spain and Portugal, and flour made from it is there used, but it is chiefly a resource of the poor in times of scarcity.

JO DAVIESS, a n.w. co. of Illinois, bounded n. by Wisconsin, and s.w. by the Mississippi, which separates it from Iowa; 650 sq.m.; pop. '70, 27,820. Surface irregular and well watered; soil fertile. Chief products are wheat, maize, oats, wool, and hay. Mines of lead are numerous, and copper is found. The articles of manufacture are carriages, agricultural implements, saddlery, and machinery. There are some flour-mills and breweries. Co. seat, Galena.

JODELLE, ETIENNE, 1532-1573; b. Paris; a dramatic poet, distinguished for his efforts to substitute the institutions of the Greek drama and choruses for the *mysteries* and *moralities* then in vogue under the patronage of the church. His tragedies, *Cleopâtre Captive* and *Didon*, and his comedy, *Eugène ou Rencontre*, were very successful. He excelled also as an orator, painter, and sculptor.

JODELN, a peculiar manner of singing with the falsetto voice in harmonic progressions, which exists only among the Tyrolese and the Swiss.

JOEL (Jehovah is God), the son of Pethuel, one of the twelve minor prophets, who delivered his predictions, according to some, in the days of Joash; others, however, place him variously, in the time of Hezekiah, Manasseh, Josiah, Uzziah, &c. Concerning the circumstances of his life absolutely nothing is known. The occasion of his prophecy was an extraordinary plague of locusts, accompanied by an extreme drought, which consumed the land. After describing these judgments the prophet calls upon his countrymen to repent, and assures them that God is ready to forgive. Extraordinary warmth and tenderness of feeling, together with an enthusiastic belief in the glory of the future destiny of the people, run through the whole of the book. Some of the passages have been understood by theologians as predictive of the blessings of the Messianic age, and one is actually applied by the apostle Peter to the events which transpired on the day of Pentecost (Acts ii. 16-21). The style of Joel, always vivid and eloquent, sometimes sublime, is perhaps the very finest of any of the Old Testament writers. One of the most elaborate works on Joel is Credner's *Der Prophet Joel*. Compare Ewald, Umbreit, Henderson, &c.

JOEL, PROPHECY OF (*ante*), one of the earliest of the prophetic books, contains a series of general predictions which later prophets give more definitely. It consists of four parts: I. An announcement of devastation inflicted on the land by hosts of locusts and worms. Some interpret this as a literal description of destruction caused by these plagues of the field. Others regard it as an emblem of invasions by great armies of men led by Assyrian and Babylonian kings; or, with still wider range, by the Assyrians and Chaldeans, the Medes and Persians, Alexander, and the Romans. II. A call on the people for repentance and contrition of heart, to be manifested by fasting, solemn assemblies, and mourning; accompanied with an assurance that their transgressions should be forgiven and prosperity restored. III. A prediction of Messianic blessings that would characterize the last days. The fulfillment of this—beginning at the day of Pentecost (Acts ii. 16), which was followed not many years after by the destruction of the Jewish dispensation—is still advancing in the world's history. IV. A prediction of judgments on the adversaries of God's people, among whom Tyre, Sidon, other nations on the coast of Palestine, Egypt, and Edom, are mentioned, perhaps as representatives of all; with promises of final and perpetual blessings on Judah and Jerusalem.

JOGHIS. See YOGA, and YOGIN, *ante*.

JOGUES, ISAAC, 1607-46; b. Orleans, France; was ordained in Paris, and sent to Canada as a Jesuit missionary in 1636. After laboring several years among the Huron Indians, he established a mission at Sault St. Marie among some Algonquin tribes. With a party of Hurons he went to Quebec for supplies for the mission, and returning, they fell into an ambuscade, nearly all his companions were killed or taken, and he was made a slave and treated with great cruelty. Escaping to the Dutch at Albany and thence to New Amsterdam, he was kindly received by governor Kieft, and sent to Europe. Returning from France to Canada he confirmed a treaty of peace between the French and Mohawks in 1646, and founded a mission with that tribe, but was killed at Caughnawaga on suspicion of sorcery. An account of his captivity in Latin, of the tomahawking of René Goupil at his side, and a description of New Netherlands, with his letters were published by the New York historical society.

JOGUES, or YUGS, divisions of time in the fabulous chronology of the Hindus; as the suttee yug, tirtah yug, dwapaar yug, etc., each supposed to have covered some millions of years, and to have included a period of purity, degeneracy, or corruption, as the case might be.

JOHANNES SECUNDUS, 1511-36; b. at the Hague. His true name was Jan Everard. He had some reputation as a sculptor and painter, but excelled chiefly as a poet. He accompanied Charles V. on his expedition to Tunis. He was a man of genius and learning. His poems are admired for their classical purity, and have been translated into nearly all the principal European languages. His *Opera Poetica* were published by his brothers in 1851.

JOHAN'NISBERGER. See GERMAN WINES.

JOHANNOT, CHARLES HENRI ALFRED, 1800-37; b. Hesse-Darmstadt; educated at Paris, and distinguished himself by his engravings and paintings. His two most celebrated pictures are "Mademoiselle de Montpensier" and "The Battle of Brattelau." "The Shipwreck of Don Juan," and "Cinq Mars," obtained for him several commissions from Louis Philippe.

JOHN (*ante*), the name of twenty-three popes.—I., a Tuscan, who followed Hormisdas in the papal chair, in 523. He was employed by king Theodoric on a special mission to Constantinople, in which he would appear to have been unsuccessful, as on his return he was cast into prison, where he died, after having been pope only three years.—II. succeeded Boniface II. about 533, after an election on the part of the clergy and people of Rome. Died 535.—III. succeeded Pelagius I. in 560, receiving his

confirmation from the emperor Justinian, at the hands of the exarch of Ravenna. His occupancy of the papal see was made noteworthy by the occurrence of his conflict with the French clergy, who refused to recognize his authority. He died in 573.—IV., born in Dalmatia, became pontiff on the death of Severinus in 640. The emperor Heraclius having issued an edict in defense of the Monothelites, a schismatic sect, John assembled a council in Rome which condemned both the heresy and its defender. His death occurred in 642.—V., born at Antioch in Syria, and succeeded Benedict II. in 685; died in Aug., 687.—VI., born in Greece; succeeded to the papal throne in 701. Certain charges having been brought by the English clergy against Wilfred, archbishop of York, John called a council at Rome, which acquitted him. This pope died in 705.—VII., a Greek, who succeeded John VI., but only lived two years.—VIII., born in Rome, and succeeded Adrian II. in 872, devoted himself to extending the limits of the papal power, but was greatly thwarted by frequent incursions of the Saracens into Italy. He died by assassination in 882.—IX., born at Tibur (Tivoli), in Italy, and was raised from a convent of Benedictines to be pope in 898. He died two years later.—X. (Giovanni Cenci) succeeded to the chair in 914, and displayed great courage and force of character. He commanded in person a victorious movement of his armies against the Saracens, but becoming the victim of plots and intrigues on the part of the duke of Tuscany and his wife, was, by their orders, thrown into prison, and afterwards murdered, in 928.—XI. (Giovanni Conti), the natural son of the infamous Marosia, wife of the duke of Tuscany, already mentioned. The two were seized by Alberico, another son of Marosia, and were imprisoned together in the castle of Saint Angelo. John succeeded Stephen VIII. in 931, and was himself succeeded by Leo VII. in 936.—XII. (Ottaviano Conti) was the son of Alberico, and was elected pope when only eighteen years of age, and assumed the name Octavianus, being the first pope to adopt this custom. His licentiousness and his many crimes caused him to be summoned before a council called by Otho I., the first German emperor, and whom John had crowned. By this council he was condemned and deposed in 963. The following year he succeeded in partially reinstating himself, but fell suddenly ill, and died in 964.—XIII. was bishop of Narni, and was elected to the papacy on the demise of Benedict V. in 965, with the approval of the emperor Otho. A revolution broke out in Rome against this pope, which resulted in his capture and imprisonment. He was sustained by Otho, who marched on Rome, defeated the insurgents, and after hanging thirteen of their leaders, restored John to his position. The latter died in 972.—XIV. (Peter), bishop of Pavia, became pope about 984, succeeding Benedict VII. He retained the pontificate only nine months, when he was overthrown by Boniface VII., who procured his imprisonment, and finally his assassination, which took place in prison.—XV. succeeded John XIV. in 985, but died a few days after his election.—XVI. was elected in 985, and continued to occupy the holy see until his death, which occurred in 996.—XVII. (Philagathus), a Roman by birth, who became pope in 997, through the influence of the consul Crescentius, who deposed Gregory V. in his favor. The latter was, however, restored by the aid of Otho III., and John was murdered.—XVIII. (Sicco), an Italian of noble birth, who died a few months after assuming the pontifical title.—XIX. (Phasianus) became pope in 1003, but retired to a monastery six years later.—XX. (Romanus), son of one of the counts of Tuscany (Gregory), and succeeded his brother, Benedict VIII., in 1024. He died ten years later.—XXI. (Pedro), a native of Lisbon, succeeded Adrian V. in 1276, but only survived his election a few months.—XXII. (Jacques d'Euse, or James of Ossa), was elected to succeed Clement V. in 1316. At this period the feud of the Guelphs and the Ghibellines was disturbing Italy, and John espoused the cause of the former. The families of Visconti, Colonna, and other well-known names were among the leaders of the Ghibellines, who fought under the banner of Louis, king of Bavaria, afterwards crowned emperor in St. Peter's. While John held court at Avignon, a monk of Abruzzo, named Peter de Corvara, was made pope by Louis, under the name of Nicholas V. There were thus a pope at Avignon and another pope at Rome. John died at the former place in 1334, without having succeeded in relieving Italy from her warlike condition.—XXIII. (Cardinal Cossa), a Neapolitan, who succeeded Alexander V. in 1410. He held a disputed title, his rivals being Benedict XIII. and Gregory XII. His morals were loose, and his miserly nature made him many and powerful enemies. Having quarreled with Ladislaus, king of Naples, the latter roused the people of Rome against him, and procured his expulsion. Having appealed to the council of Constance, he was required to abdicate, was imprisoned for three years, and died in 1419.

JOHN, THE APOSTLE AND EVANGELIST (*ante*), was probably one of the two disciples of John the Baptist who, impressed with the witness of their master to Jesus of Nazareth, followed him and, having abode with him the rest of the day, were thenceforth numbered among his disciples. He and his brother James were called to be fishers of men in close connection with two other brethren, Simon and Andrew. When the twelve apostles were chosen, these four were placed at the head of the list. John and James received from Jesus the surname, "Boanerges," signifying sons of thunder. Through their mother, Salome, they sought from him what they considered the two places in his kingdom that were nearest to himself. In a Samaritan village that would

not receive him they asked, "Lord shall we command fire to come down from heaven and consume them?" At another time John said, "Master, we saw one casting out devils in thy name and we forbade him, because he followed not with us." John, Peter, and James were often specially trusted by their master. They only of the apostles were with him when he raised the daughter of Jairus, when he was transfigured on the holy mount, and when he entered on his conflict in the garden. Besides the frequent association of the three apostles, a still closer intimacy existed between John and Peter, recorded first, and perhaps beginning, when Jesus sent them together into Jerusalem to prepare the last passover. Afterwards, at the supper, they held confidential communication together in the effort to ascertain who was to be the traitor. When Jesus was arraigned before the great council, John, through his acquaintance with the high priest, in whose house the session was held, obtained admission for himself and Peter. They were together on the morning of the resurrection, when Mary Magdalene told them of the opened and empty sepulcher, and together they started immediately to see for themselves—John outrunning Peter, Peter but entering in before John. At the sea of Tiberias a special intimacy between them was shown when John, first of the company in recognizing the Lord, informed Peter personally of his discovery; and when Peter, having had the manner of his death intimated to him, inquired earnestly concerning John, "Lord, what shall this man do?" After the day of pentecost, they went together into the temple and were together in healing the lame man, in their imprisonment, and in their bold answer before the council. After the gospel had been preached in Samaria, they were sent together by the other apostles to direct and perfect the movement there. And they were still together in Jerusalem, accounted—with the second James—as pillars of the church, 17 years after the conversion of Paul. While John, from the beginning of Christ's ministry, was one of the chosen three and of the yet more favored two, he was also honored by an association with the Lord himself closer than any of the rest obtained. Not until the last passover is the distinction recorded; probably not until then was it manifested; perhaps the only outward sign of it was in the privilege given him of reclining with his head on the breast of Jesus, at that supper before which the apostles had disputed among themselves about the place that each should have in the expected kingdom. From that time he designates himself in his gospel as "the disciple whom Jesus loved." He only of the apostles stood by the cross, where he received from the Lord in his dying agony the precious charge of his mother, who was also standing by, that he might be to her as a son. After the martyrdom of Paul, John, according to the general testimony of the early Christians, resided at Ephesus, having an apostolic oversight of the churches in proconsular Asia.

JOHN, GOSPEL OF (JOHN, *ante*), I, was one of the books of the New Testament which were of standard authority in the council of Nice, 325 A.D., as possessed and acknowledged to be of apostolic origin by all the churches of Christendom. In this judgment both the parties, orthodox and Arian, of which the council was composed, were agreed. And the agreement was not disturbed by the fact that the great question in debate between them and in the churches—the proper divinity of Christ—brought this gospel into the center of the arena; so that if there had been any uncertainty respecting its genuineness the discussion would, inevitably, have made it appear. As an incidental result, therefore, that great council demonstrated the fact that, in the first quarter of the 4th c., the gospel of John was in universal use throughout the Christian church as his genuine and unquestioned work. This demonstration, in itself so clear, is confirmed by the individual testimony to the same effect given, outside of the council, by Eusebius, Athanasius, and Arius. II. About the same time the emperor Constantine made provision for building new churches and preparing new copies of the Scriptures, in which John's gospel was included, to fill the place of those which, at the close of the 3d c., during the persecution under Diocletian, had been destroyed. It is therefore plain that, in the last quarter of the 3d c., this gospel was one of the books of Scripture in use throughout the Christian churches. III. Origen, whose life extended from 253 back to 184 A.D., was a diligent student and famous teacher of the Scriptures, as well as a great traveler among the churches. He visited almost all parts of Christendom, became acquainted with many presbyters and bishops, taught in many churches, drew students to Alexandria from all sections of the empire, took an active part in the controversies of his time, and wrote much in defense of the common Christian faith. Thus eminently qualified to be a witness for the whole church, he affirms that "the four gospels, the last of which is John's, are the only undisputed ones in the whole church of God throughout the world." This is testimony not only that Origen himself received the gospel of John as genuine, but also that, towards the beginning of the 3d c., all the churches of Christendom so received it. IV. Clement of Alexandria lived from 220 back to about 165 A.D., and, besides traveling extensively in Italy, Greece, Egypt, and Asia, was a great Christian teacher at Alexandria. Concerning the gospels he says that "those of Matthew and Luke were written first; then Mark's, and last of all, John's." His testimony establishes the fact that John's gospel was in use among the churches of Christendom during the last quarter of the 2d century. V. The oldest known treatise against Christianity was written by Celsus not far from 170 A.D. "He studied the

Christian doctrines profoundly, drawing his information from the Scriptures. It is undeniable that he knew John's gospel. Indeed, Keim has proved that the image of Christ which he composed for himself is taken in great part from John's conception and presentation of him. The whole Christological attitude of the church, as Celsus describes it, is John's. It follows from this that John's gospel was at that time a record of Christianity known by friend and foe." VI. Tertullian, who lived from about 240 back to about 160 A.D., testifies that "not only among the apostolic churches, but also among all the churches which are united with them in Christian fellowship, the gospel of Luke has been maintained from its first publication; and the same authority of the apostolic churches will uphold the other gospels which we have, in due succession, through them and according to their usage, I mean those of Matthew and John; although that which was published by Mark may also be maintained as Peter's, whose interpreter Mark was." VII. Irenæus, whose life extended from 202 back to 126 A.D., says that "John's gospel was the last of the four, was published at Ephesus by the disciple of the Lord who leaned on his breast, and declares the Redeemer's primary and glorious generation from the Father, 'In the beginning was the Word.'" VIII. The Coptic versions of the New Testament, in use probably at the beginning of the 3d c., the old Latin, used still earlier in the province of Africa, and the Syriac, made not later than the earlier part of the 2d c., all contain the gospel of John. And as only previously acknowledged books of Scripture would be translated as such, these versions prove that the gospel of John was generally acknowledged as his work as far back as the earlier part of the 2d century. IX. An additional testimony, covering about the same period, is furnished by the Muratorian fragment, a part of a treatise on the books of the New Testament named from its discoverer, and assigned by critics to the latter half of the 2d century. It places John's gospel last among the four which were then universally received by the churches as of canonical authority. X. Justin Martyr was the author of a dialogue with Trypho the Jew in defense of Christianity, and of two defenses presented to the emperor and senate, the earliest of which was written between 138 and 147 A.D. In these writings, addressed to unbelievers, he quotes, as authority for his statements concerning the life and teaching of Christ, certain works which, without naming the particular authors, he calls "memoirs," "memoirs made by the apostles," "memoirs, made by the apostles, which are called gospels," and "memoirs composed by the apostles of Christ and their followers." Concerning the use made by Christians of these books he says: "On the day called Sunday all who live in cities or in the country assemble in one place, and the memoirs by the apostles, or the writings of the prophets, are read as long as time permits. When the reader has finished, the president admonishes and exhorts to the imitation of these good things." The question whether these memoirs were our four gospels has, in these last days, been strenuously debated. That they were seems clear, because our four gospels, as has been shown, were at a somewhat later period universally received and read in the churches on Sundays, as the memoirs of Christ written by apostles and their followers; viz., by Matthew and John, by Mark, the follower of Peter, and Luke, the follower of Paul: and there are no traces of any others having been so received and read. But it is impossible that in Justin Martyr's time one set of such memoirs could have been universally received and read in the churches, and in half a century later a rival or different set take their place, without great and multiform evidence being left of collision and substitution. But of any such process there is no trace whatever. That John's gospel was one of those to which Justin referred is also proved by his quotations from it and allusions to it; some of which are here given. (1) He refers to Christ as the Logos in terms which John alone uses: "the Logos was made flesh;" "through him God created all things;" "he was the only begotten of the Father of the universe, having been begotten by him in a peculiar manner as his logos and power." (2) He cites words of John the Baptist, part of which John's gospel alone gives—"I am not the Christ, but the voice of one crying." (3) As a reason why Christians considered baptism obligatory, Justin says: "For Christ also said, 'Except ye be born again, ye shall in no wise enter into the kingdom of heaven.'" But in John's gospel only is such a saying of Christ recorded. And with this he makes an explicit reference to the objection which John also ascribes to Nicodemus concerning the impossibility of a man being born a second time. (4) He says: "The Jews are justly upbraided by Christ as 'knowing neither the Father nor the Son.'" (5) He says, "Christ healed those who were blind from their birth." XI. The Gnostics as well as their opponents generally received John's gospel during the controversies carried on 120-30, giving it very forced interpretations so as to make it appear consistent with their doctrines. This fact is decisive proof that at this early period, within about a quarter of a century of the time when the gospel was probably written, its genuineness was fully established. XII. At this point we must take into account the certain truth that Christianity and numerous Christian churches existed before any of the gospels were written. The apostles, among whom John was conspicuous from the beginning, first preached and taught orally, thus making converts and founding churches. In this way the churches generally had become well acquainted with the apostolic teaching, and were accurate judges of what professed to be in harmony with it, before the gospels appeared. This explains the fact that the publication of them produced no commotion and excited no feeling except satisfaction with having in permanent form that which was loved so much and known so well. It

explains also the fact that within so short a time after John's gospel was written it was widely diffused and generally received. The transition from the spoken to the written excited no debate, and left no traces of its having been made, except the almost simultaneous presence of the book itself in all parts of Christendom.

The great design of John's gospel he has himself stated—"These are written that ye might believe that Jesus is the Christ, the Son of God; and that, believing, ye might have life through his name." In prosecution of this design, it (1) declares the existence, in the beginning, with God and as God, of the logos, who is the source of light and life, by whom all things were created; and who became flesh, dwelling among men, manifesting to chosen witnesses his glory in the fullness of grace and truth; (2) gives a statement of the mission of John the Baptist, and of his testimony to Jesus as the Messiah, the Lamb of God to take away sins, and the Son of God in whom all men are called on to believe; (3) makes prominent the portion of Christ's ministry which was fulfilled in Jerusalem—chiefly at the national feasts, yet clearly marks also his journeys to and from Galilee, where the larger portion of his work was performed; (4) records the faith of his first disciples in him as the promised Messiah; (5) gives an account of his first miracles in Galilee; of the symbolic cleansing of the temple with which his public ministry in Jerusalem began; of his interview with Nicodemus, to whom he declared the necessity of regeneration, the design of the atonement, and the love of God in sending his Son into the world; of his conversation with the woman of Samaria, to whom he proved his Messiahship by an omniscient judgment concerning herself, and made God known as the object of spiritual worship to be offered henceforth by all men everywhere; of his healing the man at Bethesda, followed by his claim of equality with God, and of power to give spiritual life, to raise all the dead, and to judge the world; of his feeding 5,000 men with five loaves; of his proclaiming himself as the bread of life, the living water, the light of the world, the giver of liberty, and the deliverer from death; of his bestowing sight on a man who had been born blind; of his announcing himself as the good shepherd, who, by laying down his life for his sheep, would give them eternal life; and of his raising Lazarus from the grave, followed by his triumphal entrance into Jerusalem. From this point the gospel gives the private communion of the Savior with the apostles at the last passover; his foretelling that Judas Iscariot would betray him, and Simon Peter deny him; his words of comfort, peace, and deliverance, followed by the promise to send the Holy Spirit as an advocate, instructor, and guide; his intercession with the Father in behalf of his disciples through all time; his apprehension and arraignment before the Jewish council and the Roman governor; his crucifixion, burial, and resurrection from the dead, interviews with his disciples, and final instructions to them. This gospel diffuses the glory of the Son of God over all his incarnate life upon earth. And as the culmination of the external proof of its genuineness is the book itself present in the churches through all the centuries since it was written, so the effulgence of the internal proof is the Divine being, character, and life exhibited through it all.

JOHN THE BAPTIST, was of the priestly race by both parents, his father, Zecharias, being a priest of the course of Abia or Abijah (I. Chron. xxiv. 10), and his mother, Elizabeth, being of the daughters of Aaron (Luke i. 5). His coming as the precursor of the Christ was foretold centuries before his birth by Isaiah as the one crying in the wilderness, and by Malacini as the messenger to prepare the way before him. His birth was foretold by an angel, who announced also what his character and office would be as the forerunner of the Christ and the reformer of the nation. On the 8th day the child was brought, in conformity with the law of Moses, to the priest for circumcision. All that we know of John for 30 years, or from his birth to the beginning of his ministry, is contained in one verse—"The child grew and waxed strong in spirit, and was in the deserts till the day of his showing to Israel." John was ordained to be a Nazarite from his birth (Luke i. 15), drinking neither wine nor strong drink, implying that he should abstain from worldly pleasures, and live a life of self-denial. In accordance with this he retired to the wild and thinly peopled region west of the Dead sea, and, by self-discipline and communion with God, prepared himself for the work to which he had been appointed. When he came forth he was dressed in the costume of one of the old prophets, with a garment woven of camel's hair and fastened to the body by a leathern girdle. His food was such as was found in the desert—locusts and wild honey. Thus prepared, he began his ministry, calling upon the people to repent in order to share in the blessings of the kingdom of God, near at hand. Multitudes were attracted by his fervor, his reputation for extraordinary sanctity, and the prevailing belief that some great one was about to appear; and many of every class came forward to confess their sins and be baptized. His baptism was a visible token of that repentance which was essential to forgiveness, but he assured his hearers that One mightier than he would baptize with the Holy Ghost. John instructed his disciples also in moral and religious duties, as fasting and prayer. But soon after he had given his testimony to the Messiah his ministry was brought to a close. The king, Herod Antipas, was living in adultery with the wife of his brother Philip, and when John reproved him for his sin; Herod put him in prison. The prison was the castle of Machærus, a fortress on the eastern side of the Dead sea. Herodias, enraged at the rebuke of John, determined that he should die. At Machærus, which was the palace of Herod as well as a fortress, was held a court-festival in honor of the king's

birthday. The daughter of Herodias danced before the company, and so delighted was Herod that he promised to give her whatever she should ask. Prompted by her mother, she asked for the head of John the Baptist. Instructed by Herod, an officer of the guard slew him in the prison. His death is supposed to have occurred just before the third passover in the course of our Lord's ministry, A.D. 28. Herod doubtless regarded him as an extraordinary person, for when he heard of the miracles of Christ he ascribed them to John, who, he said, had risen from the dead. John's disciples took the body of John and buried it, and ecclesiastical history records the honors paid to his memory. He is mentioned with great honor in the Koran under the name of Jahja.

JOHN II., surnamed **THE GOOD** (*Le Bon*), 1319-64; King of France, the second of the Valois family; succeeded his father, Philip VI. of Valois, in 1350. He commenced his reign by acts of despotism and cruelty. England being appealed to by the friends of those whom he had slain, invaded France, when John was defeated by Edward the black prince at Poitiers in 1356, and carried to Bordeaux and then to London, where he was a prisoner for three years. His ransom, by a treaty with Edward III. at Bretigny, was the surrender to the English of eight of the best French provinces and the payment of 3,000,000 crowns in gold. He left his son, the duke of Anjou, in London as a hostage for the fulfillment of the treaty, who, having escaped in violation of his parole, John voluntarily returned as a prisoner in 1364 to London, where he suddenly died.

JOHN II. (**CASIMIR**), 1609-72; King of Poland; younger son of Sigismund III. Having embarked for Spain for the purpose of persuading Philip III. to form a league against France, he was shipwrecked, and imprisoned for two years at Vincennes. Being released on a promise given by his brother, king of Portugal, never to wage war against France, he traveled through western Europe, became a Jesuit, and was made cardinal by Innocent X. Returning to Poland he succeeded his brother Ladislas in 1648, and married his widow, Maria Luisa Gonzaga. During his reign Poland was attacked by Russia and Sweden, resulting in wars which terminated in the cession of several provinces on the Baltic and the Dnieper. His wife intriguing for the son of the prince of Condé as successor to the throne, and the nobles contending among themselves, he abdicated at the diet of Warsaw, Sept. 16, 1668, and retired to France, where he was kindly received by Louis XIV. When he died his heart was interred in St. Germain des Prés, and his body taken to the cathedral of Cracow in 1676.

JOHN I., **JOAN** "the Great," 1357-1433; King of Portugal; b. Lisbon; son of Peter I. At the death of his brother Ferdinand in 1383 he became regent, and seized the throne in violation of the rights of the infanta Beatrice. A war followed, resulting in favor of John. In 1415 he took Ceuta from the Moors. The islands of Madeira, cape Verde, the Azores, and the Canaries were discovered in his reign.

JOHN II., **JOAN** "the Perfect," 1455-95; King of Portugal; b. Lisbon; married in 1471 Leonora of Lancaster; succeeded his father, Alphonso V., Aug. 29, 1481. He put to death for conspiracy the dukes of Braganza and Viseo, 1483-84. During his reign B. Dias discovered the cape of Good Hope, Da Gama visited India, and the African coasts were explored by distinguished navigators.

JOHN IV., **JOAN**, 1604-56; King of Portugal; b. Villaviciosa; duke of Braganza; in 1640 expelled the Spanish usurpers and succeeded to the throne of Portugal. During his reign he was constantly at war with Spain.

JOHN VI., **JOAN**, 1767-1826; King of Portugal; b. Lisbon; in 1785 married Charlotte (Carlota), infanta of Spain; in 1788 received the title of prince of Brazil; in consequence of his mother's illness, governed the kingdom of Portugal in 1789; was regent in 1799; on the approach of the French army in 1807 removed his court to Brazil; became king on the death of his mother in 1816; returned to Portugal in 1821; recognized the independence of Brazil in 1825.

JOHN I., **JUAN**, 1358-90; King of Castile and Leon; b. Epila; succeeded to the throne on the death of his father, Henry II., in 1379, at the age of 21. To defeat the schemes of John of Gaunt, duke of Lancaster, who had assumed the title of king of Castile, and of Ferdinand of Portugal, he attacked Portugal for the purpose of placing his son on the throne of that kingdom, but was unsuccessful. He made peace by marrying Beatrice, 10 years of age, daughter and heiress of the king of Portugal. Ferdinand dying, John again made war upon Portugal in support of Beatrice against John I., king of that country, but failed on account of the prevalence of yellow-fever. Subsequently, the duke invading Castile, peace was made by the marriage of his daughter to prince Henry.

JOHN THE CONSTANT, 1467-1532; Elector of Saxony; succeeded his brother, Frederick the wise, in 1525. In alliance with Philip of Hesse and other states he zealously espoused the Protestant reformation, and caused the Augsburg confession to be proclaimed in the diet held in that city in 1530.

JOHN THE FEARLESS, 1371-1419; Duke of Burgundy; son of Philip the bold of France. At the age of 25 he joined the king of Hungary against the Turks, and was made prisoner at the battle of Nicopolis, but for the great courage which he had displayed the sultan Bajazet liberated him, and gave him the surname of the fearless.

On his return to France he succeeded his father in 1404 as duke of Burgundy, but was opposed by the queen and the duke of Orleans, his rival. In 1407 he instigated the assassination of the duke, and soon obtained almost supreme power in the kingdom. This was followed by a civil war, in which John was aided by Henry IV. of England. In 1416 he formed a secret alliance with Henry V. of England, invaded France, and captured the king in 1418, but was treacherously murdered in 1419 at the instigation of the dauphin, son of Charles VI. He was succeeded by his son, Philip the good.

JOHN, FRANZ VON, Baron, b. Bruck, Lower Austria, 1815; was captain under field-marshal Radetzky in the Italian revolution of 1848, occupied important military positions, was appointed minister of war, and in 1874 was master of the ordnance and chief of staff of the whole army.

JOHN OF BEVERLEY. See BEVERLEY.

JOHN OF SALISBURY, 1120-82; b. Salisbury. In 1136 he went to France, attended the lectures of the famous Abelard, and remained there for several years, studying scholastic logic, grammar, the classics, and theology. He was sent on important missions to popes Eugene III. and Adrian IV., by whom he was received with great honor. When Thomas à Becket became archbishop of Canterbury, he was made his secretary, was with him in his exile in France, returned with him to England, and witnessed his death. In 1176 he was appointed bishop of Chartres. His greatest works are: *Polyeraticus sive de nugis Curialium et Vestigiis Philosophorum*; libri octo; a work of great erudition and caustic satire on the follies of courtiers, etc.; and *Metalogicus*, a defense of the studies of the schools against the sneers of the ignorant. His *Vita ac Passio S. Thomæ*, and his letters, numbering 302, are interesting. His complete works, in 5 vols., were published in 1848. He is described as an elegant Latin poet, an impressive orator, and the most learned man of his time.

JOHN C. GREEN SCHOOL OF SCIENCE. See COLLEGE OF NEW JERSEY.

JOHN, EPISTLES OF (JOHN, *ante*), three in number. The first and longest is quoted, as an undoubted work of the apostle John, by Polycarp, who in mature age was, about 100 A.D., made bishop of Smyrna, and was a disciple of John, well acquainted with his character, doctrine, and writings. It is ascribed to John by Papias also, who, contemporary with him and bishop of Hieropolis, received his doctrine, according to his own statement, from the living voice of followers of the apostles. It is contained also in the Syriac version of the New Testament, made not later than the early part of the 2d c., in all the other ancient versions, and in all extant catalogues of canonical books. It is acknowledged by Irenæus, Clement of Alexandria, Tertullian, Origen, Cyprian, Eusebius, Athanasius, and other ancient ecclesiastical writers. "Against this weight of historical evidence," says Olshausen, "nothing can be effected by the mere conjectures of modern times; and at present all theologians are perfectly agreed in the acknowledgment of this precious relic of the beloved disciple." Its subject-matter may be divided into four sections: I. 1-7, recapitulates the personal testimony of the apostles to the divinity and incarnation of the Lord Jesus; and declares that the union of faith and holiness is necessary to the enjoyment of fellowship with God; II. i. 8-ii. 17, asserts the sinfulness of all men; declares the divinely provided method of forgiveness through confession and faith in the atonement and intercession of Christ; specifies obedience to God and love to men as essential marks of true faith; gives counsel to the old and young; and warns Christians against love of worldly and transient things; III. ii. 18-29, affirms that all who deny the Messiahship of Jesus are anti-christs; declares that true Christians are anointed of God so that they can distinguish truth from error; and exhorts those who profess the name of Christ to abide in him, so that, at his coming, they and the apostle himself may not be ashamed; IV. iii.-v., sets forth the great privileges of true believers as the children of God; their consequent happiness and duties; and the various marks by which Christians and genuine Christianity may be distinguished from the children and doctrines of the evil one. The question concerning the genuineness of the 7th verse of chapter v. on the three heavenly witnesses has been strenuously debated by biblical students during four centuries. The preponderance of evidence is that the passage was not in the original, or in any ancient Greek manuscript; but was interpolated into Latin versions and a few late and Latinized Greek manuscripts. It is now consequently rejected by the great majority of biblical critics.

That the external evidence for the genuineness of the second and third epistles is less abundant and decisive than that for the first is accounted for by the fact that they are very brief, and are addressed to individuals. They would, therefore, naturally be read by fewer persons, and be circulated more slowly. Yet there is uncontradicted external evidence sufficient to establish their genuineness as writings of John. Irenæus quotes a passage of the second epistle; Clement of Alexandria wrote a commentary on it, and probably also on the third; Origen says that the apostle John left a second and third epistle; which, however, he adds, were not universally accepted as genuine. Dionysius and all later Alexandrian writers mention them as productions of the same John that wrote the first epistle and the gospel. Ephrem Syrus, in the 4th c., speaks of them as John's; and in the 5th c. they were almost universally received. The internal evidence for their genuineness is strong. Many of the sentiments contained in them are found

substantially in the first epistle; the style, diction, and tone of thought in all three are similar; and the zeal expressed by the writer for the truth agrees well with the boldness attributed to John from the beginning.

The second epistle, addressed to the elect lady, or the elect Kyria, and her children, congratulates her on their consistent Christian conduct; exhorts them all to cherish genuine love founded on faith and obedience; and warns them against giving aid or countenance to false teachers by receiving them into their house or even by extending to them friendly greeting.

The third epistle is addressed to Gaius, whom it characterizes as beloved, spiritually minded, consistent, and kind. This character agrees well with that of Gaius of Corinth, whom Paul commends as hospitable to him and to the whole church. He, however, was converted under Paul's ministry, while John seems to regard the Gaius to whom he wrote as one of his children. The object of the epistle was to acknowledge the kindness which Gaius had already shown to the strangers who were traveling as Christian missionaries, and to ask his continued help for them on their journey in a manner suitable to their character as God's servants, who, for Christ's sake, had renounced all resources outside of the church. John says also that he had written, probably on this subject, to the church; but that Diotrephes, in his love of pre-eminence, would not give heed to his request, and would not allow other members of the church to comply with it. From what is said of Diotrephes it is plain that he was an arbitrary and ambitious man—the type of a large class—who had, either formally or practically, attained the chief place in the church. The apostle, promising to attend to his case when he visited the church, exhorts Gaius to follow good and not bad examples, and commends to him Demetrius as well known to the apostle himself, and of good report among all the brethren.

JOHN FREDERICK, THE MAGNANIMOUS, 1503–54; Elector of Saxony; b. Torgau; was the son of John the constant, whom on his death in 1532 he succeeded in the electorate in conjunction with his brother Ernest. He officially sanctioned the reformation in 1553, and led the Protestant league of Schmalkalden against Charles V. He was taken prisoner at Mühlberg and condemned to death, but released at the intercession of his cousin Maurice of Saxony. On the death of Ernest in 1553 he became sole elector.

JOHN GEORGE I., 1585–1656; Elector of Saxony, succeeding his brother, Christian II., in 1611. During the thirty years' war his course was vacillating, sometimes favoring the emperor, sometimes the Protestant allies. In 1635 he made peace with the emperor Ferdinand II.

JOHN or JOHANN, NEPOMUK MARIA JOSEPH, 1801–73; King of Saxony; b. Dresden; youngest son of duke Maximilian of Saxony; was president of the ministry of finance, from which he retired in 1831; commander of the national guard, 1831–46. On the death of his brother, Frederick Augustus II., Aug. 9, 1854, he became king. In the war of 1866 he sided with Austria against the western powers, and in the battle of Königgrätz fought against the Prussians who had entered Saxony. Peace being concluded, king John agreed to pay a large sum to Prussia, and to cede the fortress of Königstein. Saxony afterwards joined the North German confederation, and was conspicuous in the Franco-Prussian war of 1870–71. John was fond of antiquarian research. In 1838 he visited Italy, and published a German translation of the *Divina Commedia* of Dante with valuable notes. In 1824 he was elected president of the antiquarian society of Saxony, and in 1852–53 was president of the German society of history and antiquities. He left manuscript translations of 70 English poems.

JOHN OF GAUNT, or OF GHIENT, 1339–99; Duke of Lancaster; b. Ghent; son of Edward III. In the French wars he served with great bravery under his brother, Edward the black prince. In 1370 he married Constance, the daughter of Peter the cruel, king of Castile and Leon, and on the death of Peter claimed the sovereignty of those kingdoms, but subsequently giving his daughter in marriage to the heir-apparent, he relinquished his claims. His son, surnamed Bolingbroke, became king of England under the title of Henry IV.

JOHNS, or JOHN'S, ST. (*ante*); geographical. See SAINT JOHN'S.

JOHN, SAINT (*ante*). See SAINT JOHN.

JOHN SCOTUS. See ERIGENA, *ante*.

JOHNS HOPKINS UNIVERSITY, in Baltimore, Md., began its instructions in 1876. It was established by the liberality of Johns Hopkins, a merchant of Baltimore, who gave a fund of about \$7,000,000 for the establishment of a university and a hospital. The gifts are free from ecclesiastical and political control, and free also from burdensome conditions. It is not intended to use any part of the capital for buildings. The hospital is now being constructed; the university occupies a temporary site, near the Peabody institute. There are now (1879–80) 32 instructors of various grades, and 162 students. There are 70 fellowships open to students from any part of the country, and a larger number of scholarships, a part of them giving free tuition, open to young men from Maryland, Virginia, North Carolina, and the district of Columbia; and a part of them open for competition to any young men. Eighty-two of the present students have already received an academic degree. Graduate, matriculate, and non-

matriculate students are received and instructed according to their various requirements. The degrees of doctor of philosophy and bachelor of arts are conferred upon students who pass the requisite examinations. Equal care is bestowed upon the scientific and literary departments. Instruction is given in Sanskrit, Greek, Latin, French, German, and English, as well as in the Semitic languages; in logic, philosophy, history, and political science. The higher mathematics are taught far beyond the line of the ordinary college course. In the chemical, physical, and biological laboratories, ample arrangements have been made for instruction and investigation. The scientific apparatus has cost nearly \$30,000; the library nearly \$25,000; and additions are constantly made to the books and instruments. More than 250 literary and scientific periodicals are taken in the reading-room, which is open to the students from 9 A.M. to 10 P.M. Courses of lectures by resident and non-resident professors are open to the public during a considerable portion of every year. Classes for teachers in physiology and zoology (both involving the constant use of the microscope), in early English and in mathematics, have been taught on Saturdays. The Chesapeake zoological laboratory, now open at Beaufort, N. C., is engaged in the investigation of marine life on the Atlantic seaboard. Four scientific publications are issued under the auspices of the university, devoted respectively to mathematics, chemistry, biology, and philology. President, D. C. Gilman, LL.D.

JOHNSON, a co. in n.w. Arkansas, bounded s. by Arkansas river; 580 sq.m.; pop. '80, 11,565. It is drained by Spadra creek. The surface is uneven and well-timbered. Soil generally fertile. Staple products: cotton, tobacco, maize, and pork. Coal is found. The Little Rock and Fort Smith railroad passes through the county. Co. seat, Clarksville.

JOHNSON, an eastern central co. of Georgia; 250 sq.m.; pop. '80, 4,800. It is bounded w. by the Oconee river, and intersected by the Great Ochopee. Surface uneven, and much of it covered with forests. The staple products are cotton and maize. Co. seat, Wrightsville.

JOHNSON, a co. in eastern Kansas, bounded n.w. by the Kansas river, and partly drained by the Big Blue and Osage rivers; 500 sq.m.; pop. '70, 13,684. Surface nearly level, diversified by prairies and forests. Soil deep and fertile, producing oats, wheat, and maize. The co. is intersected by the Missouri river and several railroads, which meet at Olathe, the co. seat.

JOHNSON, a co. in eastern Kentucky; 450 sq.m.; pop. '80, 9,155. It is traversed by the w. fork of Big Sandy river. The surface is hilly and extensively covered with forests. Soil in the valleys is fertile. Staple products: wheat, maize, grass, and pork. Bituminous coal is found. Co. seat, Paintsville.

JOHNSON, a co. in southern Illinois; 325 sq.m.; pop. '70, 11,248; intersected by the Cairo and Vincennes railroad. Surface much broken by steep hills; soil fertile, producing wheat, maize, and oats. The co. abounds in limestone. Co. seat, Vienna.

JOHNSON, a co. in southern central Indiana, watered by the e. and w. forks of White river and Sugar creek; 320 sq.m.; pop. '70, 18,366. Surface rolling; extensively covered with forests; soil a fertile loam. Staples: wheat, maize, grass, and pork. Chief articles of manufacture are carriages, lumber, saddlery, and brick. There are several flour, planing, and saw-mills. The co. is intersected by the Jeffersonville, Madison and Indianapolis, and the Cincinnati and Martinsville railroads. Co. seat, Franklin.

JOHNSON, a co. in s.e. Iowa, watered by the Iowa river, traversed by the Chicago, Rock Island and Pacific, and the Burlington, Cedar Rapids and Northern railroads; 610 sq.m.; pop. '80, 25,429. The surface is varied with prairies and forests; soil very fertile. Maize, oats, hay, flax, and pork are the staple products. The co. has deposits of limestone. The principal manufactures are carriages, saddlery, and woolen goods. Co. seat, Iowa City.

JOHNSON, a co. in western Missouri, intersected by the Missouri Pacific railroad, and partly traversed by the Osage branch of the Missouri, Kansas and Texas railroad; 750 sq.m.; pop. '70, 24,648. The surface is varied by prairie and forest; soil fertile and adapted to pasturage. Staples: maize, wheat, oats, hay, and pork. Among the minerals are bituminous coal and limestone. There are manufactories of carriages, agricultural implements, and saddlery, and of flour; also saw-mills. Co. seat, Warrensburg.

JOHNSON, a co. in s.e. Nebraska, intersected by the Atchison and Nebraska railroad, and drained by the Big Nemaha river, and partly by affluents of the Little Nemaha river; 378 sq.m.; pop. '80, 7,597. It has a rolling surface, and soil very fertile, producing wheat, oats, maize, and hay. Co. seat, Tecumseh.

JOHNSON, a co. in n.e. Tennessee, bounded n. by Virginia, s.e. by North Carolina; 3,000 sq.m.; pop. '70, 5,852. It is mountainous and thickly wooded. The valleys are fertile, producing maize, oats, and grass. Iron ore is found. The co. is watered by the Watauga river and its branches. Co. seat, Taylorsville.

JOHNSON, a co. in n.e. Texas, bounded s.w. by the river Brazos; 600 sq.m.; pop. '70, 4,923. It has a rolling surface and fertile soil. Staples: cotton and maize. Co. seat, Cleburn.

JOHNSON, ALEXANDER BRYAN, 1786-1807; b. England. Emigrated to the United States and settled in Utica, N. Y., in 1801. He studied law and was admitted to practice, but established himself instead in the banking business. Of a metaphysical turn of mind, he devoted himself to the study of abstruse subjects in philosophy, and published a number of works. *Philosophy of Human Knowledge, or a Treatise on Language; Treatise on Language, or the Relation which Words bear to Things; Physiology of the Senses; Religion in its Relation to the Present Life*, etc. His *Physiology of the Senses* was favorably considered in the *Westminster Review*.

JOHNSON, ANDREW (*ante*), 1808-75; b. N. C.; son of Jacob Johnson, a petty city officer in Raleigh. The father lived only four years after Andrew's birth, and, being extremely poor, he left no funds for the boy's education. When ten years old he was bound to a Mr. Selby to learn the business of tailoring. While there he took great interest in readings by a gentleman who frequently passed an hour or two in the humble shop. Andrew listened with close attention, particularly to the speeches of great English orators. But his utter lack of education was a great grievance, and he resolved to learn to read by himself. For this purpose he borrowed books and passed all the time between labor and sleep in diligent study. Just before his term of service was out he went to work on his own account at Laurens Court-house, S. C.; but in the spring of 1826 he went back to Raleigh. His tailor-master had gone to another place, and Andrew made a foot-journey of 20 m. to see him, his object being to apologize for leaving service before his term was out, and to pay for the unfulfilled months. Selby wanted security, but being an entire stranger in the place Johnson was unable to give it. His mother depended upon him for support, and he determined to try his fortunes in Tennessee. Taking her with him he made his way to Greenville, in the extreme eastern part of the state. Here he worked as a journeyman tailor about a year, took a wife, and concluded to make the place his permanent home. His wife was fairly educated, and she became his tutor. He could read, but that was the most of his acquirements. She taught him writing and ordinary arithmetic, these, with reading, being then the extent of the education of the working classes in that region. Johnson was naturally a politician, and when only 20 years old he got up a party of workmen in opposition to the planters and other well-to-do citizens who had always had their own way in the town. The workmen chose him alderman and re-elected him twice. In 1830 Greenville was a city, and Johnson was elected mayor, serving three years. His ambition was to be a public speaker, and to qualify himself he joined a debating society, most of whom were students of Greenville college. In 1834 Johnson took an active part in advocating the proposed new constitution for the state. Parties at this period were whigs and democrats; Johnson was anxious to get into the legislature, and, in accordance with the custom in that part of the union, in 1835 he nominated himself for the assembly, declaring himself a democrat. As the nomination was not readily accepted by the people, he took the field in person, and by several strong common-sense speeches quite silenced the other side and easily secured his election. The main feature of his course as a member was his opposition to the creation of a debt of \$4,000,000 for internal improvements unless such debt should be approved by the vote of the people. But the bill was passed, and in 1837 Johnson was defeated on account of his opposition to it. That his course was right was proved soon afterwards; the works undertaken were abandoned, and the greater portion of the money was stolen or wasted. In 1839 he was again chosen a member of the legislature. In the "Log Cabin and Hard Cider" campaign for president in 1840 he was on the democratic electoral ticket, and made many speeches for Van Buren. The next year he was elected to the state senate, and in 1843 he was chosen a member of congress, where he served his constituents so satisfactorily as to secure four consecutive re-elections. Within his ten years' service in the house of representatives he supported the annexation of Texas and the war on Mexico; the refunding of gen. Jackson's fine for imprisoning a judge at New Orleans in 1815, and the tariff of 1846. He favored the acceptance of the 49th degree of latitude to settle the Oregon boundary dispute, and was one of the foremost of the advocates of a homestead law. He was also a firm supporter of the president's veto power; and on all occasions he was in favor of the greatest economy in public expenditures. He left congress Mar., 1853, and in the same year was chosen governor of his state over the whig aspirant. Two years afterwards he was re-chosen over a candidate supported both by the whigs and the newly-organized American party. This last canvass was very turbulent, and many threats were made against the democratic candidate and others. On one occasion Johnson stepped to the front of the platform from which he was to speak, drew a pistol so that it could be seen by all, laid it before him, and remarked: "Fellow-citizens: I have been informed that part of the business to be transacted on the present occasion is the assassination of the individual who now has the honor of addressing you. I beg respectfully to propose that this be the first business in order. Therefore if any man has come here to-night for the purpose indicated, I do not say to him let him speak, but let him shoot." Naturally a man of such character was popular with the rude people in that comparatively new country. The tailor's apprentice, who at ten years of age could not even read, had, by force of character and an iron determination to advance, filled the highest offices in the state. If he lacked education and fitness for polite society, he had

enough for the people who supported him. But during all this political work and the duties of office he improved every occasion for study, and little by little accumulated enough education to fit him for the responsible positions which he was called upon to fill.

In 1857 he was elected to the United States senate, where, before the breaking out of the rebellion, he was conspicuous in advocating the 160-acres homestead act; and chiefly through his influence the bill was passed, but it was vetoed by president Buchanan. In 1858 Jefferson Davis, because, as he alleged, of Indian and Mormon troubles, proposed a considerable addition to the regular army. Johnson opposed it, and finally instead of a temporary addition of 4,000 men the bill when passed authorized but two regiments to serve a year and a half only. Another great measure opposed by Johnson was the Pacific railroad. Thus far in a political career of 30 years he had said very little on the slavery question, observing the silence characteristic of the party to which he belonged; but he never failed to place the question of the union of the states far above the existence or extinction of slavery. In the democratic national convention of 1860 the delegates from Tennessee put Johnson forward as their candidate for president, but he did not come near the nomination. In his own state he began a vigorous support of Breckenridge, who was the candidate of the extreme pro-slavery section of the party. Soon discovering, however, that secession was contemplated, he went directly against Breckenridge, and gave loyal support in the senate to the cause of union. While he was speaking against secession in the senate, his state, through her legislature, voted to go with the secessionists, and violence broke out everywhere. There had been a vote of the people on the question of calling a convention to consider the subject of secession, and the opponents of such a convention were largely in the majority. Therefore when the legislature assumed to do what the people had just refused, the excitement was intense, so much so that when Johnson went home in the spring of 1861 it was at the risk of his life. Personal assaults were threatened, but his undaunted courage was well known and no one dared attack him, satisfying their spite by burning him in effigy in all the large towns in the state. He worked hard and faithfully for the union in the e. Tennessee convention, in furnishing assistance to union fugitives, and in establishing a camp which might serve as a place of refuge. The secessionists made their nearest personal attack upon Johnson when they turned his family out of doors and confiscated his slaves. Early in March, 1862, Johnson was made military governor of Tennessee, and he commenced his duties at Nashville about the middle of the month. He sent forth a proclamation in which he said "while it may become necessary, in vindicating the violated majesty of the law and reasserting its imperial sway, to punish intelligent and conscious treason, no merely retaliatory or vindictive policy will be adopted." His proposed leniency had no effect upon the determined secessionists. For a long time he labored earnestly to bring his state back into the union; but neither mild nor harsh measures produced any good effect. On one occasion, in view of numerous outrages by secessionists, he proclaimed that "in every instance in which a union man is arrested and maltreated by marauding bands, five or more rebels from the most prominent in the immediate neighborhood shall be arrested, imprisoned, and otherwise dealt with as the case may require; and further, in all cases where the property of citizens loyal to the government of the United States is taken or destroyed, full and ample remuneration shall be made to them out of the property of such rebels in the vicinity as have sympathized with and given aid, comfort, information, or encouragement to the parties committing such depredations." Near the beginning of Mar., 1864, under Johnson's special orders, Tennessee elected officers, both state and local, and the wheels of an ordinary government began to move. Three months afterwards Andrew Johnson was nominated for vice-president on the ticket with Mr. Lincoln. He was elected and inaugurated Mar. 4, 1865. His remarkable address on that occasion was the cause of deep regret not only among his friends, but among all loyal people. Six weeks afterwards Mr. Lincoln was shot by Booth, and the tailor's apprentice of Raleigh became president of the United States.

This was the third time that a vice-president had risen to the executive office through the accident of death, and in this case, as in the cases preceding, the incumbent was soon at variance with the party that elected him. President Harrison died April, 1841, one month after his inauguration, and vice-president Tyler took the chair. In less than six months he had estranged his whig supporters by vetoing an act for the creation of a national bank, the fiscal bank of the United States, which act had been passed at his express desire. The bill was modified, again passed, and again vetoed. Then his cabinet, with the exception of Mr. Webster, the secretary of state, resigned. A cabinet was appointed of whom nearly all were democrats. By these and other acts the first "accidental" president lost the confidence of the whigs without gaining that of the democrats. He was nominated for president, but after three months' consideration withdrew his name. President Taylor died July 9, 1850, a year and four months after his installation, and vice-president Fillmore succeeded to the chief office. He adhered to the whig party, but his approval of the law for the return of fugitive slaves gave great offense to a large number of his supporters. To the mere approval he added a proclamation in which he denounced interference in the case of captured fugitives, and declared that he would enforce the law at all hazards. The result of his administration was the overthrow of the old whig party and the capture of all branches of the government by the democrats.

Andrew Johnson, on taking the executive chair, made a brief speech, which was understood to mean that he would deal with the utmost severity with the authors of the rebellion, which had been crushed only a few days before by the surrender of Lee. He said: "The American people must be taught, if they do not already feel, that treason is a crime and must be punished; that the government will not always bear with its enemies; that it is strong, not only to protect but to punish. The people must understand that it [treason] is the blackest of crimes and will be surely punished." Instead of following this policy his course was the very opposite. He hastened to bring Virginia back to the union, and near the close of June he brushed aside all regulations with regard to trade with the seceding states. He proclaimed general amnesty to all (except a few specified classes) who would swear to be loyal to the union. Under his proclamations provisional governments were set up in a number of the states but a few weeks before in rebellion, and he prepared the way for them to send members to congress as if no secession had occurred. These acts put him in opposition to the majority of the republicans in congress. In all that he had done there had been no thought of securing the political rights of the freedmen, who were left entirely in the control of their late masters. Congress appointed a committee on reconstruction and on the admission of southern members to the house, and adopted the civil rights act, adding an act to increase the power and efficiency of the freedmen's bureau. These last two bills were vetoed by president Johnson, but they were readopted and passed by the necessary majority. This action was severely denounced by Mr. Johnson, who characterized the course of congress as another rebellion. Thenceforward the republican president was in direct antagonism to the republican majorities in the senate and house, and, it may be added, with the mass of the party in the union. In Aug. an attempt was made by a thinly-attended convention at Philadelphia to form a party to support the president's policy, but nothing came of it. The disaffection soon began to work in the cabinet, and in July three members resigned in consequence of irreconcilable differences with the president. But he was so persistent in his course that when going with gen. Grant and others to Chicago, to witness the laying of the foundation of a monument to the late Stephen A. Douglas, he took advantage of every stopping of the train to address the people in advocacy of his policy, usually adding denunciatory remarks concerning the course of the republicans in congress. Congress declared that the 14th amendment to the constitution should be ratified by every seceding state as a preliminary to readmission to the union. This amendment declared all persons born or naturalized in the union to be citizens, and, of course, included all the freedmen in the south. The president vetoed the resolution. During the next session acts were passed requiring the right of voting to be granted without regard to color, in territories applying for admission as states. This, too, was vetoed; but in all cases the bills were re-passed and became laws. Mr. Johnson's next trouble was with the military governments and commanders. In Mar., 1867, in spite of the familiar veto, an act was passed making five military districts in the ten most important of the southern states. The president appointed the five commanders, but at the same time procured from the attorney-general, Mr. Stanbery, an opinion as to certain legal effects of the several acts aiming at reconstruction. The opinion, the general tenor of which was to destroy the efficiency of the acts of congress, was supported by all the members of the cabinet except Mr. Stanton, the secretary of war. Thus fortified the president sent this opinion to the military commanders in the south as an order for their guidance. The effect was told in a report by gen. Sheridan, who said: "The result of Mr. Stanbery's opinion is beginning to show itself by defiant opposition in all acts of the military commander, and by impeding and rendering helpless the civil officers acting under his appointment." The next move in congress was to make the gen. of the army the sole supervisor of the acts of the military commanders. Mr. Johnson vetoed the act, but it was passed notwithstanding his objections. A few months later the president retaliated by putting new commanders over the districts. Mr. Stanton's opposition to the Stanbery opinion was not forgotten, and in Aug. he was displaced as secretary of war, and gen. Grant was given the position for the time being. Mr. Stanton protested that his removal was in violation of the tenure-of-office law, but nothing came of his protest at the time. Aug. 20, 1867, a proclamation from the president stated that peace, order, and the supremacy of civil government existed throughout the union. Early in Sept. another amnesty proclaimed by him restored to suffrage and relieved from confiscation of property nearly all the people who had been in the secession movement. At the meeting of congress in Sept. Mr. Johnson gave the senate his reason for removing Mr. Stanton, but the senate opposed the removal, thus replacing the secretary. Five months afterwards he again removed Stanton, and put Lorenzo Thomas in his place. The senate immediately resolved that "the president has no power to remove the secretary of war and designate any other person to perform the duties of that office." Mr. Johnson's long contest with congress was drawing to a dramatic close. The day after the adoption of the resolutions by the senate, the house of representatives determined upon the president's impeachment; the vote being 126 in favor and 47 against such action. The articles of impeachment, eleven in all, recited many offenses, the principal of which were the removal of the secretary of war; the public expression of disregard of and contempt for the legislative branch of the government, the declaration that the one in session was not a constitutional congress, and

particularly his obstruction to the execution of congressional acts. The trial commenced on Mar. 23, Mr. Stanbery (attorney-general) and judges Curtis and Nelson being the president's counsel. The main point of the defense was that Mr. Johnson's course in the work of reconstruction was merely the continuation of a plan resolved upon by president Lincoln and the members of the cabinet. In the senate, sitting as the court of impeachment, the final vote on contempt for congress and on the Stanton removal was: guilty, 35; not guilty 19. This amounted to an acquittal, as it requires two-thirds of the senate to declare a defendant guilty. As soon as the trial was over Mr. Stanton voluntarily gave up his office and was succeeded by gen. Schofield.

At the democratic national convention in New York, July 4, 1868, Mr. Johnson's name was among the list of candidates for president. On the first ballot he had 65 votes, standing second on the list, Pendleton having 105. But his vote diminished rapidly until, on the 19th ballot, his name did not appear. On the same day Mr. Johnson proclaimed pardon to all persons except such as might be under indictment before a federal court. On Christmas day, 1868, he proclaimed complete pardon to all who had been directly or indirectly concerned in secession, or in any way taken part in the war against the union. This was his last important official act. He was succeeded, Mar. 4, 1869, by gen. Grant, and at once repaired to his home in Greenville. Anxious to return to political life he sought the place of senator from Tennessee, and came within three votes of getting it. Two years later (1872) he ran as an independent candidate for congress, but the result was to elect the republican nominee. But in Jan., 1875, he was chosen U. S. senator, and was in his seat during the short extra session in Mar., his only noteworthy act being a speech against the recognition of the Kellogg government in Louisiana. For a man with so few early advantages—which may have accounted for his narrowness and obstinacy—he showed great ability, courage, and political acumen, while his honesty was never doubted.

JOHNSON, Lady ARBELLA, or ARABELLA, d. 1630; daughter of Thomas, 14th earl of Lincoln, wife of Isaac Johnson. She accompanied her husband to New England on board the *Eagle*, whose name was changed in her honor to the *Arbella*. She died at Salem a little more than two months after her arrival in Massachusetts Bay.

JOHNSON, CAVE, 1793–1866. A resident of Tennessee, he entered the legal profession, and, for several years, held the office of circuit judge in that state. He was elected a representative in congress in 1829, and served eight years, and again, from 1839, six years. In 1845 he was called to the cabinet of president Polk as postmaster-general. On the election of gen. Taylor he returned to Tennessee, where he became president of a bank, which position he continued to fill until the outbreak of the war of secession. He remained loyal to the union, and was elected a state senator by that side, but age and declining health forced him to retire from political life.

JOHNSON, EASTMAN, b. Me., 1824. At an early age he developed talent as an artist, and succeeded in making his work so remunerative that he was enabled to defray the expense of study in Europe. He remained two years in Düsseldorf, and four years at the Hague, producing, among other works, "The Savoyard" and "The Card-Players," which were his earliest efforts in oil. He displayed a leaning towards *genre* subjects, and soon became famous in this department of art-work. Having made an examination of the leading European galleries, he settled in New York in 1856, where he continued to reside, contributing freely to the annual exhibitions of the national academy of design, in which he is an academician. His more noteworthy and popular works are "The Old Kentucky Home;" "The Boyhood of Abraham Lincoln;" "The Wounded Drummer-Boy;" "Mount Vernon Kitchen," etc. Mr. Johnson's paintings have been among the best known and most popular of those of any American artist, having been very largely multiplied by chromo-lithography. He excels in composition, while his execution is refined, though broad and spirited. In some of his work he resembles Edouard Frère, one of the masters in the modern French school of *genre* painting.

JOHNSON, EDWARD, 1599–1672; b. England; came to New England with gov. Winthrop about 1630, and settled in Woburn, Mass., where he became prominent in local organization. He was representative to the general court during several terms, and its speaker in 1655, besides holding the office of recorder of the town of Woburn from its incorporation to the date of his death. He wrote a history of New England, from 1628 to 1652, which was published in 1654 under the title, *Wonder-working Providence of Zion's Savior in New England*. This work has been reprinted in the *Mass. Hist. Coll.*

JOHNSON, HERSCHEL V., 1812–80; b. Ga.; a practicing lawyer and prominent democratic politician in his own state, with somewhat of a national reputation. He was a U. S. senator in 1848; judge of the Georgia supreme court, 1849–53; governor of the state, 1853–57; and candidate for vice-president with Stephen A. Douglas in 1860. He was in the confederate senate during the war of secession.

JOHNSON, ISAAC, d. 1630; b. England; accompanied gov. Winthrop on board the *Arbella* to New England, and became one of the founders of the colony of Massachusetts Bay. He was among those who organized the first church at Charlestown, Mass., and he conducted the first settlement at Boston, which was made on account of its pos-

sessing better water facilities than Charlestown. Johnson was the wealthiest man in the colony, public spirited, and generous, but he only lived three months after his arrival.

JOHNSON, SIR JOHN, 1742-1830; son of sir William; succeeded to his father's estates a year before the outbreak of the American revolution, and, raising a body of men, fled to Canada, where he was commissioned a colonel in the royal service. He defeated gen. Herkimer at Fort Stanwix in 1777, but three years later was himself defeated, and his property was confiscated by the U. S. government. The British government gave him a grant of land in Canada; he was made a member of the colonial council, and received the appointment of superintendent of Indian affairs, which he held until his death.

JOHNSON, JOSEPH, b. Charleston, 1776; was a graduate of the university of Penn.; studied medicine, and began practice in his native city, where he also held the office of mayor for many years. He was much interested in education, was commissioner of public schools, and president of the apprentices' library association. For 60 years he was a member of the South Carolina society, during 20 of which he was its president. He was active in politics, and strenuously opposed the nullification measures of 1832. Besides being the author of numerous essays and published papers upon a variety of topics, he compiled *Traditions and Reminiscences of the Revolution*, esteemed as an important adjunct to the history of that period.

JOHNSON, OLIVER, b. Vt., 1809; a prominent publicist and editor; was apprenticed to a printer in Montpelier, Vt., and entered the editorial profession in 1831. For 30 years he was earnestly engaged in advocating the anti-slavery cause in the various newspapers with which he was concerned, and as a lecturer and pamphleteer. From 1865 to 1870 he was managing-editor of the *Independent*, New York, and editor of the *New York Weekly Tribune* for the three years following. In 1873 he became the superintending editor of the *Christian Union*, a position which he continued to hold until 1876, when he became editor of the *Journal*, published in Orange, N. J., continuing until 1879. He now resides in New York, engaged in literary labor. Mr. Johnson's published works have been *A Dissertation*, in support of the doctrine of eternal punishment (1832); several pamphlets upon the anti-slavery and other reforms, and (1880) *William Lloyd Garrison and his Times; or, Sketches of the Anti-Slavery Movement in America*, 430 pp. He is a clear and facile writer, and in all his public work has shown intense interest, keen sense of justice, and quick sympathy with whatever cause or class seemed to be under disadvantage. His early work, noted above, indicates theological views to which of late years he has had strong repugnance.

JOHNSON, PERCIVAL NORTON, 1793-1866; b. England; an expert metallurgist, much employed in consultation at important English mines. His father being an assayer, he was early familiarized with the nature and relations of metals, and first established the rules for accurately determining the analysis of bullion. Having found in use in Germany the alloy known as German silver, he introduced it into England. He improved the mechanism in use in some of the Cornish mines, and made important inventions and discoveries in mining and metallurgy.

JOHNSON, REVERDY, 1796-1876; b. Md.; studied law, and was admitted to the Maryland bar in 1815. He gained a high reputation as a profound lawyer, and was frequently employed in arguing important cases before the supreme court of the United States. He represented his native state in the U. S. senate, 1845-49, when he entered president Taylor's cabinet as attorney-general. After the death of gen. Taylor in 1850 Mr. Johnson continued to practice law in Baltimore, and edited the reports of the Maryland court of appeals from 1800 to 1826. In 1863 he re-entered the U. S. senate for six years, but was appointed minister to England in 1868. His negotiations towards a settlement of the disputed *Alabama* claims having proved unsatisfactory to the American government, and his convention with Great Britain being rejected by the senate of the United States, Mr. Johnson was recalled in 1869. During the trial of the assassins and conspirators concerned in the murder of Abraham Lincoln, Mr. Johnson prepared an argument in behalf of Mrs. Surratt (afterwards executed for complicity in the assassination) which the military court that tried the case refused to hear.

JOHNSON, RICHARD MENTOR, 1780-1850; b. Ky.; from being a practicing lawyer, a state legislator, and a member of congress, became the col. of a regiment of Kentucky mounted riflemen in the war of 1812, and did good service on the Canadian frontier. In 1813 Johnson raised another regiment of mounted soldiers, and supported gen. Harrison, particularly during the battle of the Thames. He was badly wounded in this engagement, but is said to have killed the celebrated chief Tecumseh, out of the mystery attending whose death originated the popular question, "Who killed Tecumseh?" In 1836 Johnson ran for vice-president on the ticket with Martin Van Buren, and being defeated by a few votes, and no choice being made, the senate selected him for the office, in accordance with the law in such cases. In 1850 he was a member of the Kentucky state legislature, and died in Frankfort while occupying this position. He was distinguished for the kindness of his nature, and for the fascinating gentleness of his manners. He framed the law which abolished imprisonment for debt in Kentucky.

JOHNSON, RICHARD W., b. Ky., 1827; graduated at West Point, entered the U. S. infantry, exchanged to cavalry in 1855, and served against the Indians in Texas and Mexico. He was a capt. of cavalry in 1861, and in the same year promoted to command a brigade under gen. Buell. He fought gallantly in the army of the Cumberland, and distinguished himself at Stone river, Chickamauga, and Missionary ridge; and at the battle of Nashville commanded a division of cavalry, and was brevetted brig.gen. in 1865. He was brevetted maj.gen. U. S. A. for gallant services, and was retired with full rank in 1867.

JOHNSON, SAMUEL, b. Mass., 1822; a graduate of Harvard university and of the divinity school, and pastor of a "free church" in Lynn, Mass., being independent in his religious opinions, though agreeing generally with the Unitarian belief. He edited, jointly with the rev. Samuel Longfellow, a collection of sacred poetry entitled *Hymns of the Spirit*.

JOHNSON, SAMUEL, D.D., 1696-1772; b. Conn.; a graduate of Yale college, and the first president (1754-63) of King's, now Columbia, college, New York. He received the degree of A.M. both at Oxford and Cambridge; but, notwithstanding his ability and his learning, he was unpopular with the New England people. He was constantly involved in controversy, growing out of his adoption of the Episcopalian faith, and published many controversial works. His other writings were *A System of Morality*, a compend of logic and metaphysics, and another of ethics, the two latter being introduced into the university of Pennsylvania as text-books. He also published an *English and Hebrew Grammar*.

JOHNSON, WALTER ROGERS, 1794-1852; b. Mass.; a scientific expert in the departments of physics and applied chemistry. He was a teacher in Pennsylvania 1821-26, when he became professor of mechanics and natural philosophy in the Philadelphia high school. He devoted himself to studying the strength of materials and mechanical construction, and was often employed in consultation and as an expert in the construction of public works. In 1848 he was attached to the Smithsonian institution, was connected with the first world's fair, London, 1851, and was the first secretary of the American association for the advancement of science. He wrote *Coal Trade of British America*; *Report on Coals*; and *Use of Anthracite in the Manufacture of Iron*.

JOHNSON, Sir WILLIAM, 1715-74; b. Ireland; was sent to America in 1738 to take the management of the estates of his uncle, admiral sir Peter Warren. His business brought him in contact with the Mohawk Indians, whose language he learned, and who made him an honorary chieftain of their tribe. Johnson received his baronetcy during the French and Indian war, for having defeated baron Dieskau at lake George (which he named). He fought with Abercrombie at fort Ticonderoga, and on the death of gen. Prideaux before fort Niagara, he succeeded that general in the command of the expedition, in which he was completely successful. Sir William's services to the British cause were highly esteemed, and the king presented him with a grant of 100,000 acres of land in New York, where sir William settled in the new residence which he erected, and which was called "Johnson Hall." Around this center a settlement was made which soon grew into the village of Johnstown, Tryon co., N. Y. Sir William continued to reside on his estate until his death, and aided largely in the development of the surrounding country, and in fostering stock-raising and agriculture. In 1768 he effected the important treaty with the Indians at fort Stanwix.

JOHNSON, WILLIAM SAMUEL, LL.D., 1727-1819; b. Conn.; educated for the bar after graduating at Yale in 1744. He was in England in 1766 acting as a colonial agent, and while there became acquainted with Dr. Samuel Johnson, with whom he corresponded after his return to America. A member of congress in 1785, he was also a member of the constitutional convention of 1787, and two years later sat in the U. S. senate to represent his native state. From 1791 to 1800 he was president of Columbia college, New York.

JOHNSTON, a co. in e. North Carolina, traversed by the Little and Neuse rivers, and the Richmond and Danville, and Atlantic and North Carolina railroads; 640 sq.m.; pop. '70, 16,897; surface undulating and heavily wooded, two-thirds of the entire acreage in 1870 being woodland. The soil is fairly productive, corn, sweet potatoes, and cotton being chiefly grown. Pork is extensively raised. Minerals are generally diffused, including iron, lead, gold, silver, and zinc. Granite is also abundant. Capital, Smithfield.

JOHNSTON, ALBERT SIDNEY, 1803-62; educated at West Point, graduated 1826, and entered the U. S. army in the Sixth infantry. He fought in the Black Hawk war, but resigned from the service shortly after its close, and emigrated to Texas, then struggling for its independence, which was declared in 1836. Johnston enlisted in the Texan army after the battle of San Jacinto, and was appointed commander-in-chief in place of gen. Felix Houston, with whom he fought a duel in consequence. In 1838 gen. Johnston received the appointment of secretary of war, but two years later retired from the public service, and became a planter. When the war broke out between the United States and Mexico gen. Johnston raised a Texan rifle-regiment, of which he took command, and at the siege of Monterey was acting inspector-general on the staff of gen. W. O. Butler. He was appointed by president Taylor a paymaster in the army in 1849,

and in 1855 col. of the 2d U. S. cavalry. In 1857, the Mormons having defied the U. S. authority, a military expedition was sent against them, more with the design to overawe than to assume the offensive by positive action. This mission required great coolness and judgment, and gen. Johnston was chosen for its command. He led the expedition across the plains to Salt Lake city, and succeeded in effecting the purpose of the government without bloodshed. His success in this difficult enterprise was rewarded by a brevet brigadier-generalship. At the outbreak of the rebellion gen. Johnston was in command of the military division of the Pacific, but in May, 1861, resigned his commission, and, proceeding to Richmond, entered the service of the confederate government, being appointed a gen. and placed in command in the west. In the autumn of 1861 he held Bowling Green, Ky.; the capture of fort Donelson in the following spring forced him to evacuate this stronghold, and he retired with his army into Tennessee, and made a stand at Corinth, Miss., where he joined gen. Beauregard. With an army of 50,000 men he attacked gen. Grant, April 6, 1862, at Pittsburg Landing, and fought the battle of Shiloh. Gen. Johnston was killed by a rifle-ball on the first day of this engagement. He was esteemed by the confederates as among their bravest and most skillful generals. Gen. Grant has highly commended his ability; and Horace Greeley said of him (*American Conflict*) that he "was probably the ablest commander at any time engaged in the rebel service."

JOHNSTON, ARTHUR, 1587-1641; b. in Aberdeenshire, Scotland; educated for a physician, and took his degree of M.D. in Padua in 1610. He was an enthusiastic student of the Latin and Greek classical writers, and formed from them a style which has been greatly admired by critical authorities. He wrote poems in Latin, and paraphrased, in the same language, the Psalms of David. He was physician-in-ordinary to Charles I. from 1632.

JOHNSTON, GABRIEL, b. Scotland at the close of the 17th c.; educated at the university of St. Andrews, in which he became professor of oriental languages; governor of North Carolina, 1734-52. In honor of the earl of Wilmington, whose patronage he enjoyed, he named one of the important towns of the state.

JOHNSTON, GEORGE, 1798-1855; b. Simprin, Scotland; studied medicine with Dr. Abercrombie; graduated at the university of Edinburgh in 1819, and practiced his profession at Berwick-on-Tweed. He devoted himself with great zeal and success to natural history. Besides numerous contributions to the *Edinburgh Philosophical Journal* and other scientific periodicals, he published *History of British Zoöphytes*; *History of British Sponges and Lythophytes*; *Introduction to Conchology*; *The Natural History of the Eastern Borders*; and, at the time of his death, was preparing a work on British annelids.

JOHNSTON, JOHN, LL.D., b. Me., 1806; graduated at Bowdoin; was principal of a seminary at Cazenovia, N. Y.; in 1835 became assistant professor of natural science, and afterwards professor, at the Wesleyan university, Middletown, Conn., where he remains. He is the author of several books on chemistry and natural philosophy, which are used in many colleges and schools. He published also a history of Bristol and Bremen, Me., the latter containing valuable information in relation to the early history of the state. He has contributed to many important periodicals, and is a member of several historical societies and scientific associations.

JOHNSTON, JOHN TAYLOR, b. N. Y., 1820; educated in New York and Edinburgh; graduated at the university of New York in 1839; was admitted to the bar in 1843. He is president of the council of the university of the city of New York, and president of the metropolitan museum of art. He has been actively connected with railroads, and has been prominent as the efficient president of the Central railroad of New Jersey, to which office he was elected in 1848.

JOHNSTON, JOSEPH ECCLESTON, an American gen., b. Prince Edward co. Va., 1807; graduated at the military academy, West Point, in 1829; was engaged in garrison duty and as aide to gen. Scott in the Seminole war until 1837, when he resigned his commission and became a civil engineer, but re-entered the army in July, 1838, as first lieut. of topographical engineers; and brevetted capt. for gallantry in the Florida war. After this, until the commencement of the Mexican war, he was engaged in river and harbor improvements, and occupied with various surveys of the boundaries between the United States and the British possessions. In the Mexican war, 1846-47, he served with distinction, was twice wounded, and was brevetted maj., lieut.col., and col. In 1853-55 he had charge of western river improvements, and afterwards was engaged in various duties in Utah, Kansas, and elsewhere. In June, 1860, he was appointed quarter-master-gen., with the rank of brig.gen. April 22, 1861, he resigned his commission, and was appointed maj.gen or gen. in the rebel service by Jefferson Davis. In May he commanded a force at Harper's Ferry, where he was opposed by gen. Patterson. Moving on to Manassas he formed a junction with Beauregard. In the early part of the campaign of 1862 he had command of all the confederate forces in Virginia, and at the battle of Fair Oaks, near Richmond, May 31, 1862, was severely wounded, and for several months disabled for service. On reporting for duty in Nov. he was assigned, notwithstanding the hostility of Jefferson Davis, to the military department of

Tennessee. In April, 1863, he reported himself still unfit for active service. In the spring following he made an attempt to relieve Vicksburg, which was besieged by Grant, but was defeated at Jackson, May 14, and retreated to Canton. After the defeat of Bragg by gen. Grant at Chattanooga, Nov. 25, 1863, Johnston was put in command of all the forces of the s.w. With 55,000 men he first occupied the fortified position of Dalton, Ga. Gen. Sherman attacked him with a superior force, and he was obliged to fall back first to Resaca, thence, after a severe battle, to Altoona pass. to Kenesaw mountain, and across the Chattahoochee. Gen. Sherman threatening his line of communication with Atlanta, his base of supply, and a place of great military importance, Johnston reached Atlanta in July, and determined to hold it to the last. But the authorities at Richmond were dissatisfied, and, July 17, ordered him to turn over his command to gen. Hood. Near the close of Feb., 1865, after Sherman had captured Atlanta, and marched without opposition to Savannah and into South Carolina, Johnston, at the earnest request of gen. Lee, was assigned to the command of the remnant of the army of the Tennessee, and of all the troops in South Carolina, Georgia, and Florida, and "to concentrate all available forces and drive back Sherman." But his force being inferior to that of Sherman he was defeated at Bentonville, N. C. Having learned that Lee had surrendered the army of Virginia to Grant, he capitulated to Sherman at Durham's station, N. C. Since the close of the war he has resided at Savannah, actively engaged in agricultural, commercial, and railroad enterprises. He has been considered one of the ablest generals, and by some the ablest in the confederate service. In 1878 he was proposed as a candidate for the U. S. senate from Georgia. He has published a *Narrative of His Military Operations* during the war.

JOHNSTON, SAMUEL, LL.D., 1733-1816; b. Dundee, Scotland; brought to North Carolina in infancy; was admitted to the bar; was a member of four provincial congresses, presiding over the first two; a member of the continental congress, 1781-82; governor of North Carolina, 1788-89; U. S. senator, 1789-93; judge of the supreme court, 1800-3.

JOHNSTONE, ROBERT, b. in the latter half of the 16th c., was a historian whose works were at one period highly valued. Of his personal history little is known, except that he went to London; accumulated a large fortune, bequeathed considerable sums to the university of Edinburgh, and to various towns in Annandale, the home of his ancestors, and died in 1639. His *Historia Rerum Britannicarum, etc., ab anno 1572 ad annum 1628*, intended as a supplement to Buchanan's work, possessed real merit.

JOHNSTOWN, a t. in New York on Cayadutta creek, a branch of the Mohawk river; 48 m. n.w. of Albany; pop. '70, 3,282; connected with Fonda, on the New York Central railroad, by the Fonda, Johnstown and Gloversville railroad. It has 9 churches, 2 banks, a union school, 3 weekly newspapers, 3 hotels, gas-works, planing and grist mills, factories for gloves and mittens, and establishments for the dressing of skins and leather. The population of the town, which includes Gloversville and some other villages is 16,626.

JOHNSTOWN, a borough of Cambria co., Penn., at the junction of Conemaugh river and Stony creek, on the Pennsylvania canal and railroad; 78 m. e. of Pittsburgh, 39 m. s.w. of Altoona. The extensive works of the Cambria iron co., employing 1600 men in making iron and steel rails for railroads, are in this borough. It has also 16 churches, a convent, an academy, a national and savings bank, a daily and 4 weekly newspapers, tanneries, flour, woolen, and planing mills.

JOINDER OF PARTIES, in law, is a phrase signifying that persons having a common interest and a common responsibility in any matter or subject are to be joined in any action at law relating thereto. Such joinder arises generally out of joint contract, ownership, or wrong done. When two or more persons are joined in a contract, they must be joined also in any action arising therefrom. If one of two joint parties die, the rule gives way, and the survivor either sues or is sued as the case may be. When the parties are so numerous that they cannot all be brought into court, one of them may sue for the benefit of the whole; as where an administrator is called to render an account to many creditors of moneys in his hands, one creditor may bring an action not only for himself, but also for all the others. In cases of tort the parties responsible are not necessarily all joined as defendants, but where two or more persons are jointly injured they should be joined as plaintiffs, but not where the injury is to the person. The practice in respect to husband and wife is modified by the rule of the common law which merges the legal existence of the latter in that of the former. But by the common law they must be joined for torts committed by the wife before or during marriage, and must join as plaintiffs for personal injuries to the wife, or injuries to her property before marriage. And they must join and be joined in actions or contracts made by the wife before marriage, in actions arising from the wife's position as executrix and administratrix, and in many other cases. In New York and several other states, however, this rule has been set aside in many cases by recent legislation, which recognizes the personality of the wife in the same way as if she were unmarried. In courts of law a failure to make the proper persons parties is fatal to the action; but courts of equity are not so strict.

JOINT AND SEVERAL (*ante*), a legal phrase defining the liability of two or more persons for a debt which they owe in common. It implies that each individual debtor is responsible not merely for a relative proportion of the indebtedness, but for the whole, and may be sued therefor if the creditor so elect. It might happen that all the debtors save one have become insolvent, in which case the one who is solvent may be compelled to pay the whole debt. In that case he will have a claim in law upon his co-debtors for their respective portions of the common indebtedness, and no more; their responsibility to each other being determined by a different rule from that which applies to their common relation to the creditor. In equity, however, those who are solvent are required to contribute equally toward the discharge of the entire debt. A joint and several obligation may either be created by the express language of a contract or covenant, or arise by necessary or fair implication of terms. It is usual to employ the words, "we jointly and severally," but any other language fairly implying the same thing is equally binding. A joint and several obligation may also arise from the legal relations of the parties. If the creditor grant a release under seal to one of several joint debtors, he will thereby release them all. If a judgment against one be returned unsatisfied, it will not bar an action against the others. A joint and several liability may also arise in cases of tort; and when this happens the injured party may sue one, any, or all, of the responsible parties. Full damages may be recovered from the person prosecuted, and he will have no claim upon the other wrong-doers unless he can show that he was not himself willfully or intentionally a participant in the wrong complained of.

JOINT-STOCK COMPANY (*ante*). Until within a recent period joint-stock companies in the states of the American union were organized according to the rules of the common law; but now they are formed generally under statutory provisions intended to secure the rights of stockholders and to protect the public from imposition. These provisions are not precisely the same in all the states, though they have a common purpose and rest upon a common principle. In the state of New York the law prescribes the mode of organization, and when the conditions have been complied with the company is not dissolved by the death of one or more of its stockholders, but only by judgment of a court for fraud or other adequate cause. They may purchase, hold, and convey real estate within certain limitations growing out of the nature of their business; and, if the association is composed of seven or more stockholders, it may sue or be sued in the name of its president or treasurer. If judgment against it in such a suit be returned unsatisfied, then suits may be instituted against any or all of the shareholders individually as at common law. It is not a corporation in the usual sense, though possessing certain corporate powers; it is rather an enlarged copartnership under special regulations. In some of the American states there are no joint-stock companies distinct from corporations, but there are provisions for organizing similar associations, and modifying, for their benefit, the rule respecting the personal liability of the shareholders. Instead of following the example of England in assimilating partnerships to corporations, the laws here assimilate corporations to partnerships by making the shareholders personally responsible, to a greater or less degree, for the debts of the association; and this while the associations formed in accordance with the provisions of law are designated as corporations.

JOINT TENANCY (*ante*) is a term of the common law signifying the ownership—either in fee simple, fee-tail, for life, for years, or at will, by two or more persons, with unity of interest, time, title, and possession—of an estate in real property. They must all hold upon one and the same conditions in every respect, each of them being regarded as having possession of every parcel and of the whole estate, not indeed for every purpose, but in respect of tenure and survivorship. For the purpose of alienation each joint tenant has a right only to his undivided relative share of the property, and the purchaser of such right simply succeeds to the position of the seller, but is not a joint tenant. If there are two tenants, each may dispose of an undivided half; if four, an undivided quarter, and so on; but the purchaser cannot enter upon the exclusive possession of his share, for the estate must remain undivided, subject to an entirety of interest on the part of each joint tenant, and to what is called the principle of survivorship, by which is meant the right of the last survivor to the whole property. In other words, when one of several joint tenants dies his share passes to the survivors, and so on until the last survivor takes the whole interest, whatever it may be, and upon his death it will pass to his heirs. An estate in joint tenancy can be created only by the specific act of the parties thereto. In this country such tenancy is very rare, the law presuming nothing in its favor, but inclining rather toward tenancy in common, which excludes the principle of survivorship and implies that the estate may be divided and each tenant take his proportionate share. Joint tenancy, in fact, is a relic of feudal times, when it was the policy of the law to keep large estates intact; whereas in this country the law favors the largest increase in the number of landholders, it being assumed that an interest in the soil enhances the dignity and loyalty of the citizen. As long ago as 1786 estates devised to two or more persons in the state of New York, without express provision that they were to be held in joint tenancy, were declared to be tenancies in common, and similar legislation exists in some other states. Joint tenancy is not favored

in courts of equity, except when granted to co-trustees. Joint tenants are regarded in law as a single owner as respects third parties, and they must therefore all be joined in any suits that concern their joint estate. Possession by one tenant is deemed the possession of all, and a conveyance to one a conveyance to all. The possessor is liable, however, to his co-tenants for their share of the rents and profits, and liable, also, to an action for refusal to join them in making necessary repairs. Corporations cannot be joint tenants, either with each other or with individuals.

JOINVILLE, a t. of France in the department of Haute-Marne, on the Marne; pop. 3,723; 27 m. n. of Chaumont. In its vicinity was the castle of the dukes of Guise. It has a communal college.

JOINVILLE, FRANÇOIS FERDINAND PHILIPPE LOUIS MARIE D'ORLEANS, Prince de, the third son of Louis Philippe, king of the French; b. Neuilly, 1818; began his naval studies soon after his father's accession in 1830, went to sea at the age of thirteen as pupil on board the frigate *Artemise*; received a liberal education in the colleges of France, and thenceforth devoted himself with zeal to his profession. In 1838 he received command of the corvette *Créole*, and joining the fleet of admiral Baudin, took a prominent part in the bombardment of St. Juan d'Ulloa and Vera Cruz, was the first to enter the gates of the city under a heavy fire, and was saved from death by the devotion of one of his officers. In this attack he captured the Mexican general Arista, for which he received the cross of the legion of honor, and was made captain. In 1840 he was sent by the king to St. Helena in command of the frigate *La Belle Poule*, to bring to France the body of the emperor Napoleon. Returning from a visit to the United States he went to Rio de Janeiro, and in 1843 married Donna Francisca de Braganza, sister of Dom Pedro II. In the same year he was made rear-admiral, and took part in the sittings of the admiralty board, greatly assisting in solving the question of adapting steam to vessels of war, and urging the necessity of taking measures to effect it. In 1844, war breaking out between France and Morocco, he commanded the squadron that bombarded Tangiers and took Mogador. For his gallantry he was raised to the rank of vice-admiral. When the revolution of 1848 broke out and overthrew the constitutional monarchy, the prince de Joinville was in Algiers with his brother duc d'Aumale. They immediately sailed for England, and joined Louis Philippe in his exile at Claremont. While the ship *Ocean Monarch* was burning off Southampton, Aug. 24, 1848, the prince distinguished himself by aiding in the rescue of many of the passengers. In his seclusion he devoted himself to the education of his children, the colonization of his estates in Brazil, and writing for the press. In 1844 he had commenced in the *Revue des Deux Mondes* a series of articles on the French navy, one of which appearing in 1865 was a comparative review of the fleets of the United States and France, and excited much attention. In 1852 his estate in France was confiscated by Louis Napoleon. About twelve months after the war of the rebellion broke out he visited the United States with his two nephews, the count de Paris and the duke de Chartres. The nephews joined the staff of gen. McClellan, taking an active part in the Chickahominy campaign. At the battle of Gaines Hill especially they showed great courage. Gen. McClellan highly appreciated the military experience and sound judgment of the prince. Returning to England in 1862 he published an account of those events in a well-written article in the *Revue des Deux Mondes*. After the downfall of the empire in 1870 he returned with the other Orleanist princes. They were ordered to depart at once, but the prince, under an assumed name, took part in the campaign of the army of the Loire. His arrest was ordered by Gambetta, minister of war, and the police escorted him to a vessel to take him back to England. In 1871 the edict of banishment was abrogated by the French assembly, and he and his brother, duc d'Aumale, took their seats in the national assembly, Dec. 19, 1871. Among his articles in the *Revue des Deux Mondes* are *Note sur l'État des Forces Navales de la France*; *Étude sur l'Escadre de la Méditerranée*; *La Guerre de Chine*; *La Guerre d'Amérique Campagne du Potomac*.

JOKJOKERTA, or **TUGYAKARTA**, a Dutch residency of Java, on the southern coast, near the center of the island; 1232 sq.m.; pop. 441,799. It was formerly one of the important native states of Java. The soil is very fertile, producing rice, coffee, and tobacco. The teak-tree is very abundant. The volcano of Nerapi is 3,000 ft. high.

JOKTAN, one of the sons of Eber, a descendant from Shem, the progenitor of several tribes in southern Arabia, called Joktanites. The Arabs call him Kahtan. The principal Joktanite kingdom and the chief state of ancient Arabia was that of the Yemen, founded, as the Arabs say, by Yaarub, son or descendant of Kahtan or Joktan. This was the biblical kingdom of Sheba.

JOLIET, a city, and capital of Will co., Ill., in Joliet township, on both sides of the Des Plaines river; 35 m. s.w. of Chicago, on the Illinois and Michigan canal, and at the junction of the Chicago, Rock Island, and Pacific, the Chicago and Alton, and the Michigan Central railroads; pop. '80, 16,145. It has 12 churches, 3 chapels, 2 national and 2 private banks, 1 semi-weekly and 4 weekly newspapers, 10 public schools, 2 high schools, a Roman Catholic academy, a convent, a public library. It has a paid fire department, is lighted with gas, and is well built. The city-hall is a fine edifice. The state-prison, near the city, is a splendid building, of fine gray limestone, the largest in the

country, inclosing 16½ acres, and built at a cost of more than \$1,000,000. The city has extensive flour-mills, machine-shops, Bessemer steel works and rolling mills, carriage shops, marble works, manufactures of builders' hardware, farming implements, sash, doors, and blinds, breweries, lime-kilns, and brickyards. Near the city are large quarries of superior limestone, called Joliet limestone, of which the state-prison and many public edifices in Chicago are built. In these quarries 1200 men are employed. The canal and river here furnish abundant water-power.

JOLIET, CHARLES, b. in the department of Doubs, 1832. Until 1864 he was in the civil service, and subsequently devoted himself to journalism and miscellaneous literature. His *Le roman de deux jeunes Mariés* and *Mademoiselle Chérubin* were very popular, and his novels on subjects pertaining to the Franco-German war, 1870-71, gained for him a high reputation.

JOLIET, LOUIS, 1645-1700, b. Quebec; educated at the Jesuits' college for the priesthood, but abandoned the design, and going west engaged in the fur trade. In 1672 he was appointed by Frontenac, governor of Canada, to explore the Mississippi. He and père Marquette, starting from Michilimackinac, May 17, 1673, proceeded to Green bay, ascended the Fox river, obtained Indian guides to the Wisconsin, entered the Mississippi, June 17, 1687, and passing down, reached the Arkansas. Satisfied that the river flowed into the gulf of Mexico, and not into the Pacific ocean, they returned to lake Michigan, by the way of the Illinois river. Joliet preceding alone to Quebec, his canoe upset in the Lachine rapids, and he lost his maps and manuscripts. From memory he prepared a map and report of the expedition. He was appointed royal hydrographer at Quebec. In 1680 he received the grant of the seignury of Anticosti island, to the development of whose fisheries and trade he devoted himself. In 1697 he obtained the seignury of Joliette, which still belongs to his family.

JOLIETTE, a co. in Quebec, Canada, bordering on the St. Lawrence, drained by the river L'Assomption and several smaller streams, and traversed by the St. Lawrence and Industry railroad; 2,670 sq. m.; pop. '71, 23,075. Co. seat, Joliette.

JOLIETTE, a t., capital of Joliette co., Quebec, on L'Assomption river, 42 m. n.e. of Montreal; pop. '71, 3,047. A railway of 12 m. connects it with the St. Lawrence. It is on the St. Lawrence and Industry railroad. It contains grist and saw mills, a large foundry, a tannery, several stores, a college, convent, hospital, mechanics' institute, a French weekly newspaper. It has a weekly market, and does an extensive trade in agricultural products and in timber; and has quarries of limestone.

JOLLIVET, PIERRE JULES, b. Paris, 1803; a historical painter. After spending some time in Madrid, he returned to Paris, and in 1831 exhibited *genre* pictures relating to Spanish history. In 1835 he gained the medal of the first class. His principal works are, "Louis VIII. taking the Oriflamme at St. Denis;" "Lara," in the Luxembourg; "Le Massacre des Innocents," at the museum of Rouen; "The Installation of the Magistrates in 1849." Among his latest works are, "Art in the Time of Pericles;" "The Jewels of Cornelia."

JOMARD, EDMÉ FRANÇOIS, 1775-1862; b. Versailles; studied at the école polytechnique; accompanied the army to Egypt in 1798 as a member of the scientific commission; was distinguished for his researches; returned in 1802, and was appointed secretary to the commission. He prepared the *Description de l'Égypte*, and directed the engraving and printing of it for 20 years. The portions of this work which Jomard himself wrote, were published separately under the title of *Observations on Ancient and Modern Egypt; or, a Historical and Picturesque Description of its Monuments*. In 1821 he took part in founding the geographical society of Paris. In 1828 he was appointed *conservateur administrateur* in the royal library. At his suggestion Mehemet Ali sent several young men to Paris for education, who were placed under the direction of Jomard, forming what was called *institut des Égyptiens*. Mehemet's successor conferred upon him the honorary title of bey. Besides his work on Egypt referred to he published *Voyage à l'Oasis de Syonah; Remarques sur les Rapports de l'Éthiopie et de l'Égypte*, etc.

JOMELLI, NICOLÒ, 1714-74; b. Aversa, near Naples. Initiated in music by Muzillo he visited Naples in 1730, where he studied under Prota and Mancini, and afterwards at a conservatory under Feo and Leo. His first compositions were cantatas. Devoting himself to dramatic music he composed at the age of twenty-three his first opera, *Errore amoroso*, which was received with so much favor that he determined to cultivate theatrical composition. In 1738 he composed his first serious opera, *Odoardo*. In 1740 he was summoned to Rome, where he was warmly patronized by cardinal York, and composed two operas. The next year he went to Bologna, and composed *Ezio*. Returning to Rome he produced *Didone*, one of his best works. Invited to Venice he produced *Merope* for the Teatro Fenice, and a *Laudate* for the church of Santo Marco. While at Naples he brought out his opera *Elumene*, which was greatly applauded. At Bologna he studied church music under padre Martini. In 1745, visiting Vienna, he became an intimate friend of Metastasio, to whose conversation and criticisms he acknowledged his great indebtedness. He remained here two years, giving instruction in music to the empress Maria Theresa. In 1748, again called to Rome, he composed his opera *Artaserse*, also his famous oratorio, *La Pas-*

sione, and through the influence of cardinal Albani he was made the next year chapel-master of St. Peter's in the Vatican. In 1754 he resigned that position and became chapel-master and court-composer to the duke of Würtemberg at Stüttgart. Here he remained about 18 years, composing a large number of operas, among which was his *Missa pro Defunctis*, or *Requiem*, which displayed uncommon genius. In 1772 he returned to Naples, but his style had so much changed through the influence of German music that his operas were not popular. He was attacked with paralysis, but rallied, and composed a *Miserere*, which is pronounced the finest of his works. His known compositions are forty operas; five cantatas; four oratorios; thirty-four church compositions. Jomelli has been styled the "Glück of Italy."

JONAH, BOOK OF (JONAH, *ante*), has always been placed by the Jews among their canonical books, and is referred to as historical several times in the apocryphal books and by Josephus. The Savior also quoted it as historical, comparing his continuing three days in the grave to Jonah's continuing three days in the belly of the fish; and his preaching to the Jews to Jonah's preaching to the Ninevites. There is nothing incredible in its statement that God had prepared a great fish to receive Jonah after he had been cast into the sea. There are evidences of design in the constitution of all fish that swim in the sea, showing that they have been prepared for different purposes; and this fish could be prepared for this specific purpose as easily and wisely as any other fish for any other work. The book, though written by a prophet, is chiefly historical, and may be divided into three parts: I. The command to proclaim the threatened destruction of Nineveh; Jonah's attempt to evade the duty by taking a sea voyage; the storm, the falling of the lot on Jonah, followed by his confession and his being, at his own suggestion, cast into the sea; his apparent destruction by the sea monster, which, however, after three days threw him up again alive upon the shore. II. His thanksgiving after the deliverance, in which he recorded the prayers he had offered during his imprisonment and, with gratitude for the mercy shown to him, promised obedience to God's commands. III. The renewal of the command to go to Nineveh; Jonah's obedience and faithful utterance of the message intrusted to him; the humiliation and repentance of the Ninevites, from the king to the lowest subject, expressed by a universal fast, during which men and beasts were covered with sackcloth and did not taste either food or water (that in times of fasting beasts of burden were sometimes subjected to the same forms of humiliation as men, both Herodotus and Plutarch state); the withholding of the threatened destruction on their repentance, in accordance with a general principle of the divine government, announced afterwards to Jeremiah (xviii. 8); Jonah's discontent with the result, because it compromised his reputation as a prophet, and the emblematic method by which the Lord reproved him.

JONAS, JUSTUS, 1493-1555; b. Nordhausen, Saxony; was professor of law at Erfurt, and, in 1521, of theology, at Wittenburg; preacher at Halle in 1541, and at Coburg in 1551. He was a prominent German reformer, an intimate friend of Luther; accompanied him to the diet at Worms and at Augsburg; assisted him in the translation of the Bible, and by his preaching and translation of the works of Luther and Melancthon did much to promote the reformation. At the time of his death he was pastor and superintendent at Eislefeld. He published *Discussio pro Conjugio Sacerdotali*, and translated Melancthon's *Defense of the Augsburg Confession* from Latin into German. He was a ready writer and speaker.

JONATHAN, son of Saul, who was the first king of Israel. With his armor-bearer only he attacked an army of the Philistines, who, in their surprise and confusion, turned their swords upon each other. Saul seeing this brought up his forces, and completed the rout. Jonathan, faint with hunger, tasted honey which dropped in a wood, not knowing that his father had prohibited food until evening, and would have been slain by his father but for the interference of the people. He loved David devotedly, though he knew that David was to succeed Saul in his stead, and his efforts to shield him from his father's wrath led Saul to seek to kill Jonathan also. He died in a disastrous battle with the Philistines on mount Gilboa, where, on the same day, his father and his two brothers also were slain.

JONATHAN BEN-UZZIEL, the translator of the Hebrew prophetic writings into Chaldee. He was a disciple of Hillel I., and lived about B.C. 30. Tradition has ascribed to him also the paraphrase of the Pentateuch known under the name of *Pseudo-Jonathan*, and the targums of the five books. The last is a compilation from ancient materials made by several persons, and is generally published, with the Hebrew text, in the Jewish editions of the Pentateuch. A Latin version of it is given in Walton's polyglott. His expositions were mostly on Haggai, Zachariah, and Malachi.

JONES, a co. of central Georgia, bounded w. by the Ocmulgee river; the s. part is traversed by the Georgia and Central railroad, and the s.e. portion by the Macon and Augusta line; 378 sq.m.; pop. '80, 11,613. The surface is hilly and the soil fertile. The staples are cotton and maize. Iron ore, granite, and quartz are found. Co. seat, Clinton.

JONES, a co. of e. Iowa, traversed by the Iowa Midland, the Davenport and St. Paul, the Sabula, Ackley, and Dakota railroads; 576 sq.m.; pop. '80, 21,052. The sur-

face is undulating, diversified by prairie and forest; the soil is fertile. The chief products are wheat, oats, maize, potatoes, and hay. There are several manufactories for carriages, saddlery, tin, copper, and sheet-iron ware, and flour-mills.

JONES, a co. of s.e. Mississippi, drained by the Pascagoula river and its tributaries; 652 sq.m.; pop. '70, 3,313. It is thickly wooded, has a rolling surface and sandy soil. The staples are rice, maize, and sweet potatoes. Co. seat, Ellisville.

JONES, a co. of s.e. North Carolina, traversed by the river Trent; 425 sq.m.; pop. '80, 7,493. It is generally level, marshy, or sandy. Cypress and pine forests abound. The staples are cotton, tobacco, and maize. Co. seat, Trenton.

JONES, a co. of central Texas; 1204 sq.m. The co. is unorganized, and in 1870 no population was reported. It is drained by the Brazos river. The soil is generally fertile. It is mostly prairie, and adapted to stock-raising. The principal town is Anson.

JONES, ANSON, 1798-1858; b. Mass.; began the practice of medicine in 1820; resided in Philadelphia, New Orleans, and South America, and finally settled in 1833 in Brazoria, Texas. He took part in the war between Texas and Mexico as a private soldier and surgeon in the Texan army. After Texas became an independent republic he was a member of the Texan congress, and in 1838 was sent as a minister to Washington. Afterwards he was a senator in the Texan congress, and in 1841 was appointed secretary of state by president Houston. In 1844 he was elected president of Texas for three years, retaining the office until Texas was annexed to the United States. He passed the latter years of his life in agricultural pursuits. He died by his own hand.

JONES, CHARLES COLCOCK, jr., b. Savannah, 1831; graduated at Princeton with honor in 1852; studied law in Philadelphia one year, and took his degree in the Dane law school of Harvard university in 1855; admitted to the bar in Savannah in 1856, soon taking high rank in his profession; was elected mayor of the city in 1860. On the passage of the ordinance of secession in 1861 he became lieutenant in the army of the rebellion, serving under gen. J. E. Johnston. After the war he removed to New York, where he has practiced law with success. He published ten works, among which are, *Historical Sketch of the Chatham Artillery during the Confederate Struggle for Independence*; *Ancient Tumuli in Georgia*; *Antiquities of the Southern Indians*, particularly of the Georgia tribes.

JONES, J. GLANCY, b. in the valley of the Conestoga, Penn., 1811; educated for the ministry, but devoted himself to the law; was deputy attorney-general of the state; member of congress, 1850; in 1858 appointed by president Buchanan minister to Austria, remaining there till Nov. 14, 1861.

JONES, JACOB, 1770-1850; b. Del.; studied medicine and graduated at the university of Pennsylvania, but abandoned practice and became clerk of the supreme court of Delaware; was midshipman in the U. S. navy in 1799; captured in the frigate *Philadelphia* under Bainbridge in 1803, in the harbor of Tripoli, and remained a prisoner 18 months; was made commodore in 1810; commanded the U. S. sloop of war *Wasp* in 1812 when it captured the British ship *Frolic*. Both vessels were afterwards captured by the British ship *Poictiers* and taken to Bermuda. Released on parole he returned to the United States with the other Americans. He received from congress a vote of thanks and a gold medal, and was promoted in 1812 to the rank of post-captain, and placed in command of the *Macedonian* in the squadron of Decatur. After the peace he commanded the squadron in the Mediterranean and the Pacific, served some years as a commissioner of the naval board, and was governor of the naval asylum at Philadelphia.

JONES, JOEL, LL.D., 1795-1860; b. Coventry, Conn.; graduated at Yale in 1817; practiced law at Easton, Penn.; was appointed in 1830 on a commission to revise the civil code of Pennsylvania; was one of the judges of the Philadelphia district court; elected president of Girard college in 1848; mayor of Philadelphia in 1849, returning to his profession after serving one term. He was distinguished not only for his legal learning, but for his theological and biblical researches. He contributed largely to literary journals and quarterlies, and published several works, the most important of which are: *The Story of Joseph*; or, *Patriarchal Age*; *The Knowledge of One Another in the Future State*; *Jesus and the Coming Glory*. He edited several English works on prophecy under the title of the *Literalist*, in 5 vols., with valuable additions of his own; and translated from the French *Outlines of a History of the Court of Rome and of the Temporal Power of the Popes*, with many original notes appended. *Notes on Scripture* was published by his widow. Judge Jones was an elder in the Presbyterian church, and held important positions in ecclesiastical boards.

JONES, JOHN, 1729-91 b. Jamaica, N. Y., of Welsh descent; studied medicine at Rheims and Leyden; visited Edinburgh; returning, settled in New York, where he obtained an extensive practice and high reputation as an operator in surgery; was surgeon in the army at Crown Point in 1755; professor of surgery at the medical school of the college of New York in 1767. While New York was occupied by the British he relinquished his practice in the city, and retired to the country. He was for a time in the medical department of the army in 1780, where he was elected one of the physicians

of the Pennsylvania hospital; and in 1787, on the institution of the college of physicians of Philadelphia, he was elected vice-president, and contributed to its transactions a valuable paper on anthrax. He was Washington's family physician in Philadelphia, and the intimate friend and physician of Franklin, whom he attended in his last illness—publishing an account of his death. He held a high rank in his profession. He published in 1776 *Plain Remedies upon Wounds and Fractures*, and subsequently other surgical works. A volume of his medical writings, with a memoir, has been published by Dr. Mease.

JONES, JOHN PAUL (*ante*), 1747–92, b. Kirkcudbrightshire, Scotland. His name was properly John Paul, that of Jones being afterwards assumed by him for a reason not given. At the age of 12 he was apprenticed to a merchant of Whitehaven engaged in the American trade, and soon went to sea in a vessel bound for Virginia. While in port he staid with his brother who was settled as a planter, improving his leisure in study, especially of navigation. The affairs of his merchant employer being embarrassed, his indentures were canceled, and he was almost immediately engaged as third mate of a slaver. In 1766, at the age of 19, he was received as chief mate to a slaver of Jamaica, but after a few voyages abandoned this life in disgust, and in 1768 sailed for Scotland as a passenger in a brigantine, but the master and mate dying on the voyage, Paul assumed command, and brought the vessel safely into port. For this service the owners, in 1768, made him captain and supercargo, and sent him to the West Indies. In a second voyage he was involved in difficulty with the carpenter, whom he was obliged to punish for mutiny and disrespect, and who afterwards joined another vessel, took fever, and died; his death was ascribed to the punishment inflicted by his commander. Paul was tried and honorably acquitted. He made his last visit to Scotland in 1771 where he was looked upon with distrust on account of his alleged cruelty to the carpenter. He continued after this in the West India trade, acquiring quite a fortune by commercial speculations. In 1773 he went to Virginia to settle the affairs of his brother, who had died intestate and childless, and remained on the estate which had fallen to him, devoting himself to agriculture. The American revolution now breaking out, having identified himself with the colonies, he offered himself to congress to serve in the navy, was accepted, commissioned as lieutenant, Dec. 23, 1775, and appointed first lieutenant of the *Alfred*, flag-ship. When the commander came on board Jones hoisted the American flag, now for the first time displayed, and bearing, it is believed, the device of a pine tree with a rattlesnake coiled at its root. From the *Alfred* he was transferred to the sloop *Providence*, in which he cruised among the West India islands, and in 47 days made 16 prizes, and destroyed the fishery at Isle Madam and Canso. Having finished this cruise he was put in command of the *Alfred* and *Providence* as captain, and sailed Nov. 2, 1776, from Newport, on an expedition to destroy the cape Breton fishery, capture the coal fleet, and liberate a hundred Americans confined at hard labor in the mines. The expedition was successful, four prizes being brought to Boston. In June, 1776, Jones was invested with the command of the *Ranger*, a new ship built for the service, and sailed Nov. 1, stopped in France to confer with the American commissioners, and then made a cruise upon the n. coast of England, seized the fort of Whitehaven, spiked its guns, burned some of the shipping, and kept England and Scotland in constant alarm. He conceived the project of capturing the earl of Selkirk on his fine estate near Kirkcudbright, in order to compel England to adopt a general system of exchange of prisoners, but this failed on account of the absence of the earl. His crew, however, stole the family plate, which Jones bought of them and restored. During this cruise on the English coast he captured the *Drake*, a superior vessel sent out to take him, and took her into Brest with 200 prisoners. He was cordially received by the American commissioners, and after much delay was appointed to the command of the ship *Duras*, changing the name to *Bon Homme Richard*. In 1779 he set out with a squadron of 5 vessels for the coast of Scotland, causing more terror among the inhabitants than before. He threatened to burn every ship in the harbor, but a strong wind drove him out to sea. Turning his course southward, he fell in with the British fleets of 41 sail, off Flamborough head, homeward bound from the Baltic, convoyed by two powerful men-of-war, the *Serapis* and the *Countess of Scarborough*. After a desperate and bloody battle of three hours the *Serapis* was captured, and the *Bon Homme Richard* was so damaged that it went to the bottom two days afterwards. For this splendid victory he was, on his arrival in Paris, presented by Louis XVI. with a gold-mounted sword bearing a flattering inscription, was invested with the cross of the order of military merit, and greatly honored by the government, the court, and the citizens. On his return to America congress voted him a splendid gold medal, and passed a resolution commending his "zeal, prudence, and intrepidity." He received also a very complimentary letter from gen. Washington. At the conclusion of peace Jones went to Paris as American agent for prize-money. In 1787 he entered the Russian service with the title of rear-admiral, and performed valuable services against the Turks; but on account of the jealousies and intrigues of the Russian officers he resigned, though strongly urged by Catherine to remain. He returned to France, and died of the dropsy. He was not, as has been said, a prey to want and neglect, but had the attendance of the queen's physician, was cheered by the presence of several kind friends, and honored with a public funeral by the national assembly.

JONES, JOHN WINTER, b. Lambeth, England, at the commencement of the present century; educated at St. Paul's school; studied law and became connected with the civil service in 1837. In 1856 he was placed in charge of the printed books at the British museum, and on the retirement of Panizzi in 1866 became the principal librarian. He has contributed to the *New Biographical Dictionary of the Society for the Diffusion of Useful Knowledge*, besides editing several valuable works of early travels.

JONES, NOBLE WIMBERLY, 1724-1805; b. near London; son of Dr. Noble Jones; while he was young his father settled in Georgia. At an early age he held a military commission, and in 1761 was a member of the assembly. He took an active part in the war of the American revolution; was speaker of the first Georgia legislature; was a delegate to the second congress of the colonies in 1775; lost a son at the capture of Savannah in 1778; was taken prisoner at the fall of Charleston in 1780, and carried to St. Augustine; exchanged in 1781, and again sent to congress. He was president of the convention held for the revision of the state constitution in 1795.

JONES, OWEN, 1809-74; b. Wales; was articled to an English architect, with whom he studied ornamentation, and afterwards spent four years in European travel. In 1834 he passed some time in Granada, where he made studies for his great work on the Alhambra. This publication was commenced in 1836 under the personal supervision of Mr. Jones, the manipulation of the stones employed in its vivid and accurate colored illustration, requiring great care and the nicest adaptation. The work appeared in 1843, after Mr. Jones had made a second visit to Granada, in a superb folio volume of richly-colored plates, under the title of *Plans, Elevations, Sections, and Details of the Alhambra*, etc., accompanied by a complete translation of the Arabic inscriptions and a historical notice of the kings of Granada, by Señor Pascual de Gayangos. The Messrs. Longman & Co., and other houses of London, having undertaken the publication of many costly works in chromatic printing, Mr. Jones's name was connected with most of them. He published in 1842 *Designs for Mosaic and Tessellated Pavements*; with Henry Noel Humphreys, in 1847-50, *Illuminated Books of the Middle Ages*; and *The Grammar of Ornament*, 1856; as to the last of which the London *Athenæum* said in 1857 that it was "beautiful enough to be the horn-book of angels." Besides his labors in authorship, Mr. Jones was practically engaged in London in the ornamentation and decoration of buildings. He directed the decoration of the Egyptian, Greek, Roman, and Alhambra courts of the Crystal palace at Sydenham; and also erected St. James's hall, Piccadilly.

JONES, ROGER, 1789-1852; b. Westmoreland co., Va.; distinguished in the war with Great Britain in 1813; appointed second lieut. marine corps; was rapidly promoted for bravery; brevetted colonel in 1824; in 1825 appointed adj.gen. of the army, which post he held until his death.

JONES, THOMAS AP CATESBY, 1789-1858; of Welsh descent; b. Va.; entered the navy, 1805; was lieutenant in 1812; commodore in 1820; captain in 1829. From 1808 to 1812 he was in the gulf of Mexico, engaged in suppressing piracy, smuggling, and the slave trade. The British naval expedition against New Orleans having entered lake Borgne with 40 boats, he attempted with a small flotilla to intercept, but he was wounded and compelled to surrender. In 1842 he commanded the Pacific squadron, and having, from erroneous information as to war existing between the United States and Mexico, taken possession of Monterey, he was, for his indiscretion, temporarily suspended from service.

JONES, THOMAS RYMER, b. 1810; educated for the medical profession at London and Paris; became a member of the college of surgeons in 1833, but on account of deafness relinquished his profession; appointed professor of comparative anatomy in King's college, London, in 1831; Fullerian professor of physiology in the royal institution of Great Britain in 1840. Subsequently he was examiner in comparative anatomy and physiology in the London university. In 1844 he was elected a fellow of the royal society. He is an able lecturer on natural history. His first work, *A General Outline of the Animal Kingdom*, is a work of great merit. He published also *The Aquarian Naturalist*; *The Animal Creation*. He contributed also valuable articles to the *Cyclopædia of Anatomy and Physiology*.

JONES, WILLIAM, of Nayland, 1726-1800; b. Northamptonshire, Eng.; educated at the Charter house and University college, Oxford; ordained priest, 1751; became successively curate of Finedon and Wadsohoe, vicar of Bethersden, rector of Pluckley, Paston, and Hollingbourn, and perpetual curate of Nayland. In 1780 he was elected fellow of the royal society of London. He adopted, while at Oxford, the philosophy of Hutcheson, and subsequently advocated it with great erudition and ingenuity. He was a man of vast learning, an able theologian, and a proficient in music. "He had," says Bishop Horsley, "the talent of writing upon the deepest subjects for the plainest understanding." He wrote with vigor against the principles disseminated during the French revolution and illustrated by it. His most important works are *A Full Answer to Bishop Clayton's Essay on Spirit*; *Catholic Doctrine of the Trinity proved from Scripture*; *Course of Lectures on the Figurative Language of the Holy Scriptures*; *The Scholar armed against the Errors of the Times*; *Memoirs of the Life, Studies, and Writings of George Horne*; *Physiological Disquisitions*; *Art of Music*. He published also two political treatises against the

French revolution, entitled *A Letter from Thomas Bull to his Brother John*. He wrote treatises on music and composed anthems. A complete collection of his works was published in 12 vols. in 1801.

JONESBORO, BATTLE OF, Aug. 31, 1864. While Sherman was besieging Atlanta, he sent a force under Howard to take the railroad near Jonesboro, 20 m. distant, with the view of compelling the evacuation of Atlanta. Hardée was dispatched by Hood, the rebel commander, to prevent the capture. An attack was made by Hardée on Howard's intrenchments, lasting two hours, when the rebels withdrew, with a loss as reported by Hood of 1400 killed and wounded, the union army suffering much less. Atlanta, as anticipated, was evacuated Sept. 1.

JÖNKÖPING, a län or province in Sweden, bounded n. by Mariestad, lake Wetter, and Linköping, e. by Kalmar, s. by Wexio, w. by Halstad and Wenersberg; 4,275 sq.m.; pop. '72, 181,788. Much of it is rocky and mountainous; other parts are fertile and well cultivated, producing grain, potatoes, hemp, flax, and buckwheat. It abounds in minerals, especially iron, which is worked to a considerable extent. The exports are deals, pitch, tar, and potash, which the extensive woods furnish; also, cattle, butter, and cheese.

JONSSON, FINN, a historian of Iceland, 1704-89; b. Hilardal; educated at the university of Copenhagen; was appointed bishop of Skalholt in 1754. Of his numerous works in Latin and Icelandic the most valuable is *Historia Ecclesiastica Islandiæ*, 4 vols.

JOODPOOR, or **MARWAR**. See **JOUDPORE**, *ante*.

JOONPOOR', or **JAUNPOOR**. See **JOUNPUR**, *ante*.

JOORIA, a populous and flourishing seaport of Hindustan, in the peninsula of Gujerat, belonging to the rajah of Annam. It is on the gulf of Cutch, and carries on considerable trade with several places in the gulf of Cutch, and on the western coasts of India, Persia, Arabia, and to some extent with Bombay. Its exports to the southward are cotton, oil, ghee, and hides, and in return spices, powder, lead, and cocoanuts are received. In 1808 the rajah and principal inhabitants agreed with the Bombay government to discourage piracy, and abstain from plundering those in distress.

JOPLIN, a city of Jasper co., Missouri; pop. '74, est. 8,500. It has several churches, a high school, and several graded schools; a bank, a savings bank, 2 weekly newspapers, and numerous furnaces for smelting lead. It has extensive mines of lead and zinc. The Joplin railroad extends 36 m. n. to Girard, Kansas.

JORDAN (*ante*). Within a few miles of the foot of Mt. Hermon are three great fountains. One, the largest, issues from two openings in a bowl-shaped hill called Tell-el-kadi, the hill of the judge, near ancient Dan; one springs from crevices in the rocks and from among ruins that choke the mouth of a cave near Banias or Cæsarea Philippi; and one, the smallest and most remote, flows out near Hasbeiya. These are the main sources of the Jordan, which, uniting their waters, flow into and through lake Huleh. The valley of the Jordan is a part of that remarkable sunken chasm which stretches from the foot of the ridge known as the Anti-Lebanon nearly to the sea of Akabah. The sea of Tiberias, or lake of Galilee, through which the river runs, is 650 ft., and the Dead sea into which it empties is 1312 ft. below the level of the Mediterranean. Within this valley is a lower valley through which the Jordan runs in a course so tortuous that its length is about three times that of the valley. Except the herbage, shrubs or trees, and sometimes the jungle of cane, tamarisk, or willow along the river banks, most of the valley is a desert, and near the Dead sea is covered with a nitrous crust. Navigation is scarcely possible owing to rapids, the average descent between the sea of Tiberias and the Dead sea being 10 ft. to a mile; above the lake of Tiberias the fall is 300 ft. in 12 miles. The precipitous ridges which inclose the valley rise in some places on the w. to 3,000 ft., and on the e. to 5,000 ft. above the bed of the river.

JORDAN, CAMILLE, 1771-1821; b. Lyons; took an active part in politics during the French revolution; opposed a republican government, and was prominent in the insurrection of Lyons. After the fall of that city, Oct. 9, 1793, he was proscribed by the Directory, and fled to Switzerland and London. Returning to Lyons in 1796 he was chosen in 1797 to the council of five hundred, where he advocated the principles of religious liberty, and after the revolution of Sept. 4 went to Germany. In 1800 he was recalled, and opposed the measures of Bonaparte, exposing the frauds in the election of 1802 in a pamphlet, *Vrai Sens du Vote National sur le Consulat à Vie*. During Bonaparte's administration he lived in retirement, devoted to literature, until the accession of Louis XVIII. He was elected in 1816 to the chamber of deputies. At first he sided with them, but disapproving of their measures opposed them. His political speeches and writings were published in 1818.

JORDAN, CHARLES ÉTIENNE, 1700-45; b. Berlin, of French parentage; studied at Magdeburg and Geneva; appointed minister of the French Reformed church of Potzlow in 1725. On the death of his wife he resigned in 1732, and traveled for some years in Holland and France; was with the Prussian crown-prince as his literary assistant in his exile, and appointed by him privy-councilor on his accession as Frederick II. His *His-*

toire d'un Voyage littéraire en France, Angleterre, et Hollande, and his *Correspondance avec Frédéric II.*, are interesting.

JORDAN, DOROTHY, or DORA, 1762-1816; b. near Waterford, Ireland; made her début as an actress in Dublin at the age of 16 under the name of Miss Francis, as Phebe in *As You Like It*; afterwards under the name of Mrs. Jordan she acted for three years at the York theater. In 1785 she appeared in London at Drury Lane; becoming very popular in comedy and musical farce. Her ten children by the duke of Clarence, afterwards William IV., are known by the name of Fitz-Clarence. The connection being suddenly broken off by the duke in 1811, she went to France, where in 1816 she died in obscurity and poverty. It is thought by many that she did not die at the time and place stated, but lived for seven years afterwards in England under a different name. A monument to her memory, by Chantrey, was erected by William IV. after his accession.

JORDAN, RUDOLPH, b. Berlin, 1810; studied painting in Berlin and Düsseldorf; resided for a long time in Heligoland. His pictures are much admired, especially those of fisher-life in Heligoland, among which the finest are *The Shipwreck* and *The Death of the Pilot*. His *Proposal of Marriage in Heligoland* has often been lithographed. An *Examination of Pilots*, and his pictures of life in the Dutch islands, are well known.

JORDAN, WILHELM, b. Insterburg, Prussia, in 1819; graduated at the university of Königsberg in 1842, and in that year published his first volume of poetry. In 1848 he was a member of the Berlin national assembly, and was afterwards engaged in naval affairs. He wrote tragedies and comedies, and translated from Sophocles and Shakespeare. The poem by which he became distinguished is *Demiurgos ein Mysterium*.

JÖRG, JOSEPH EDMUND, b. Immensbacht, Bavaria; studied the law at Munich; became connected with the bureau of archives in 1847; in 1852 was editor of the *Historisch-Politische Blätter*; in 1865 a member of the second Bavarian chamber. He is an ultramontane Roman Catholic. He published *Geschichte des grossen Bauern Kriegs*; *Geschichte des Protestantismus in seiner neuesten Entwicklung*, 2 vols.; *Geschichte der Social-Politischen Partien in Deutschland*.

JORIS, DAVID, 1501-56; b. Delft, Holland; the leader of an Anabaptist sect known by the name of Jorists or Davidists. Early showing a fondness for the art of glass painting, he was apprenticed to a glass painter, and soon displayed great aptitude in the work. To perfect himself in the art he visited Belgium, France, and England. Returning to Holland he married, and in 1524 settled at Delft, practicing his profession; but in 1530 he began to display unusual religious zeal against Romanism, and, while a procession was passing in Delft, he stopped the priests, accused them of deceiving the people by false teachings, and reproached them for worshiping images and pictures. He was arrested, imprisoned, and tried, but by the aid of a friend escaped severe punishment. Abandoning the common principles of the reformation, he became an adherent of Anabaptist views. At first he did not identify himself with that sect on account of their disorderly conduct, and their doctrine of using the sword to establish their authority; but in 1534 he fully joined them by rebaptism. He was consecrated as bishop of Delft by Dammas, Ubbo, and others. He showed great zeal in behalf of the Anabaptists; his influence was very great and his followers numerous. The Anabaptist leaders, jealous of his success, openly disavowed him. But at the convocation of Anabaptists in 1536, Joris fearlessly declared himself a divinely appointed leader, and soon afterward issued a pamphlet calling all parties to a peaceful union. The leaders were still more provoked, and most of the Anabaptists forsook him. Those who adhered to him took the name of Jorists or Davidists. He professed to have visions and revelations, and interpreted the persecutions to which his followers were subjected as proofs of the divine favor. At Delft, Harlem, Amsterdam, Rotterdam, Leyden, and other cities, many suffered death for their adherence to him. His own mother died on the scaffold, a martyr to the doctrines which her son was propagating. Joris left Holland, and fled to the landgrave of Hesse, who refused him an asylum unless he came as a Lutheran. Suddenly in Basel, Switzerland, appeared in 1544 a man by the name of John of Bruges. He was a man of wealth, a communicant in the reformed church, and had come to reside there with his family. He was highly esteemed for his wealth and his virtues, and died peacefully with his family in 1556. This was David Joris. His son-in-law, Nicholas Blesdyck, a reformed preacher, but an avaricious and unprincipled man, after his death denounced him as guilty of the most blasphemous errors. The clergy and university declared his opinions heretical, and his body was dug up and burned. Joris was a man of excessively fervid imagination, and in religion a mystic, believing that he had divine visions, and making religion consist in the exclusion of all external objects from the thoughts, and the cultivation of silence, contemplation, and a peculiar, indescribable state of the soul. He rejected the doctrine of the Trinity, and held strange views concerning Christ. He believed that Joris was to establish internally and externally the eternal kingdom of Christ, which before was the kingdom of Christ only internally. He denied the doctrine of future judgment and the existence of angels. He held, like Manes, that the body only was defiled by sin. Of his 250 books and 1000 letters the most important is the *Book of Miracles*, under the title of *Wonderboek*. A catalogue of his writings and a complete account of his life and work were published by prof. Nippolt of Heidelberg. See DAVIDISTS.

JORTIN, JOHN, D.D., 1698-1770; b. London. His father was a French Protestant of Brittany, having come to England on the revocation of the edict of Nantes by Louis XIV. The son was educated at the Charter house and Jesus college, Cambridge, taking his first degree in 1719; soon became a fellow of the college, and graduated as M.A. in 1722. While at Cambridge he published a small volume of Latin poems entitled *Lusus Poetici*, which are regarded as worthy of a high place among modern Latin verses. He was presented with a living in Cambridgeshire, but after his marriage removed to London, where he became an admired preacher. His sermons at this time, many of which are printed, are distinguished for acuteness of thought and freshness of style. He was rector of Eastwell in Kent and St. Dunstons-in-the-east; became in 1762 the domestic chaplain of the bishop of London; was presented with the living of Kensington and a prebend in the church of St. Paul's. In 1764 he was made archdeacon of London. He resided at Kensington when he died. His most important works were: *Miscellaneous Observations upon Authors, Ancient and Modern; Remarks upon Ecclesiastical History*, 5 vols.; *Life of Erasmus; Truth of the Christian Religion; Sermons*, 4 vols.; *Tracts—Philological, Critical, and Miscellaneous*. He wrote also criticisms on Spenser, Milton, Tillotson, cardinal Pole, Seneca, and others. His works, theological and critical, display great learning and acuteness, and a peculiar terseness of language.

JOSEPH, son of Jacob, B.C. 1745-1635 as is conjectured; b. Padan-Aram, Syria. As the favorite of his father he was envied by his brothers, who, angered by his dreams, which predicted his future supremacy, sold him into Egypt. His master, Potiphar, an officer of Pharaoh, made him steward of his house, but, on a false accusation of Potiphar's wife, threw him into prison. The keeper put the whole prison under his control. His interpretation of the dreams of two of Pharaoh's officers having been fulfilled, Pharaoh called upon him to interpret his own strange dream. He did so, predicting seven years of plenty and seven years of famine. Pharaoh gave him authority to do whatever he deemed needful for the safety of the people, and exalted him to be ruler over all the land, second only to the king. In the plentiful years he laid up food in store-houses, and in the years of famine sold it to the people, taking first their money, then their cattle. When these were exhausted they offered their bodies and their lands. So Joseph bought for Pharaoh all the land except that of the priests. He then gave them seed, requiring only that one-fifth of the increase should be paid to the king. The adjacent countries sent to Egypt for grain; the sons of Jacob came also. Joseph forgave their ill treatment of him, and not only supplied them with food, but sent for his father and all the households of his brothers, and gave them houses in the best of the land of Egypt. When dying he took an oath of the descendants of Jacob, saying, "God will surely visit you, and ye shall carry up my bones from hence," which they did about 144 years later, in the exodus under Moses. Joseph's character was one of great tenderness and moral firmness, with high executive capacity. His is one of the brightest names in history.

JOSEPH, the foster-father of Jesus; a descendant of David king of Israel. He was espoused to Mary, afterwards the mother of Jesus, and when he hesitated as to taking her in marriage, an angel appeared in a dream announcing that the child to be born of her was the Son of God. When Cæsar Augustus decreed that all the world should be taxed, he went with Mary to Bethlehem, where Jesus was born, and was present when the shepherds, sent by an angel, came thither to see the holy child. When Herod sought to destroy the child after the visit of the wise men from the east, Joseph was warned again in a dream by an angel to flee into Egypt with the young child and his mother, which he did. After the death of Herod the angel of the Lord again appeared to him in a dream in Egypt, directing their return to the land of Israel. Subsequently fearing danger to the child from Archelaus, his course was directed in a dream toward Nazareth of Galilee. He was by trade a carpenter.

JOSEPH, King of Naples. See **BONAPARTE, JOSEPH, ante.**

JOSEPH, FATHER (François Leclerc du Tremblay), 1577-1638; the private secretary and confidant of cardinal Richelieu; was originally a soldier, but left the army and became a Capuchin friar. So great was his influence with the cardinal, and so well recognized his power, that he was known by the sobriquet of "his gray eminence," in contradistinction to the title of Richelieu. This fact has given rise to the choice of a subject by the celebrated painter Gérôme, whose work, "Son Eminence Gris," is well known to connoisseurs. The religious zeal of father Joseph actuated his entire official life; and conversion and the dissemination of the principles of the church, even though with fire and sword, were the objects most dear to him. In pursuance of these objects he sent missionaries to India, and even to England and Canada, while he sought earnestly to organize a crusade against the followers of Mohammed. A priest of ascetic habits, but of fiery enthusiasm, father Joseph was also a statesman of broad views and comprehensive knowledge, and one of the shrewdest and most able diplomatists of his time. So highly was he esteemed for this remarkable combination of valuable qualities—at a period when the church and politics were inextricably mingled in all civilized countries—that the pope was induced by Louis XIII., to promise him a cardinal's hat; but this honor was not actually conferred upon him, being prevented by his death. It is asserted that an important manuscript by father Joseph is deposited in the national library of Paris, supposed to be the history of the reign of Louis XIII.

JOSEPH OF ARIMATHEA, a rich and devout Israelite, a native of Arimathea, a city of Judea, thought to be Ramah of the Old Testament, and by many identified as the modern Ramlah. From the gospels we gather that he was a member of the Jewish grand council or Sanhedrim. Though not consenting to the judgment of his colleagues, he appeared either not to have had sufficient courage, or not to have found a hopeful occasion, to protest against their conspiracy for the death of Jesus. At any rate we know that through fear he did not openly profess himself a disciple of Christ. But, like the centurion, he was convinced by what he saw at the crucifixion that Jesus was the Son of God, and on the evening of that day, when the triumph of the priests and rulers seemed complete, he "went in boldly unto Pilate, and begged the body of Jesus." Having gained permission, he, with Nicodemus, embalmed and entombed it. There is a tradition, interesting but quite unsupported, that Joseph was one of the 70 disciples and preached the gospel in Great Britain.

JOSEPHINE, a co. of s.w. Oregon, bordering on California, bounded n. by the Rogue river; watered by the Rogue and Illinois rivers; 1400 sq.m.; pop. '70, 1204. It is diversified by mountains, valleys, and forests, and has a soil partly fertile. Gold mines and copper ore are found. Co. seat, Kerby.

JOSH BELL (now **BELL**), a co. of s.e. Kentucky, bordering on Tennessee and Virginia, watered by the Cumberland and the s. fork of the Kentucky rivers; 600 sq.m.; pop. '80, 6,055. The surface is mountainous, and mostly covered with forests. The staples are oats, maize, grass, and tobacco. It contains coal and iron ore. Co. seat, Pineville.

JOSHUA, BOOK OF (**JOSHUA, ante**), consists mainly of records made at the time of the events related, by a person or persons fully conversant with them, and under the direction of the great leader whose name the book bears. The accounts of the crossing over the river Jordan, of the memorial erected, of the battles, victories, punishments, treaties, are given with a definite fullness possible only for eye-witnesses, actors, and leaders in the scenes described. The division of the land by lot, and the grant of cities to the priests and Levites, by the people out of their inheritance, were made from written descriptions previously prepared and recorded in a book by surveyors expressly charged with the work. The covenant into which the people entered to serve the Lord was recorded by Joshua at the time it was made. These various accounts comprise the chief portions of the book. Besides these there are a few particulars, not affecting its integrity, that were added at a later day. These are: (1) a line added to the statement that Joshua saved Rahab with all her property and family, "and she dwelleth in Israel until this day;" (2) a sentence added to the description of Judah's lot, "as for the Jebusites—the inhabitants of Jerusalem—the children of Judah could not drive them out; but the Jebusites dwell with the children of Judah, at Jerusalem, unto this day;" (3) the accounts added at the close concerning Joshua's death and burial; the fidelity of Israel to their covenant all the days of the elders who outlived him, and had known the works of the Lord; and the death of Eleazar the priest. The land of Palestine has been examined by many persons with the book of Joshua in their hands. Among them may be mentioned Ritter, Robinson, Stanley, and Thomson. Such men say that the book of Joshua bears the same relation to the conquest of Palestine that the Dooms-day Book of England bears to the Norman conquest. The book being received as genuine is a proof of the conquest of the land; the land being examined is a proof of the accuracy of the book. This book of Joshua is full of strange names, according to the divisions of the whole land, in the mountains, valleys, plains, springs, the wilderness, and the s. country; and when they whose ears have been trained to the work of listening for the ancient names go seeking for information from place to place, while the inhabitants hold their peace, or tell only absurd legends, it is scarcely a figure of speech to say that "the stones cry out" in attestation of the book.

JOSIPPON, BOOK OF, a celebrated Hebrew chronicle, supposed to have been written by Joseph-ben-Gorion. From A.D. 950 to our own time it was quoted as a genuine work of Josephus. But from late critical inquiry it is believed to be a production of the middle ages. The author was probably a Jew who lived about the 9th or 10th century. Steinschneider believes the author to have been a native of northern Italy, and considers the chronicle the "Hebrew edition of the Latin Hegeippus." The Jewish historian and critic Grätz holds that it is simply a translation of an Arabic book of Maccabees, entitled *History of the Maccabees of Joseph-ben-Gorion*. The chronicle consists of six books. Beginning with Adam it explains the genealogical table in Gen. xi., recounts the history of Rome, Babylon, Cyrus, the fall of Babylon; then resuming the history of the Jews, describes the times of Daniel, Zerubbabel, Esther, etc.; gives an account of Alexander the great and his successors; of the translation of the Old Testament into Greek; of the Maccabees, the Herodians, and the last war ending with the destruction of the temple by Titus. This work was first printed in Mantua in 1476, and other editions appeared afterwards in different places. It has been translated into Arabic, Latin, German, and English.

JOSQUIN, DES PRÉS, or **DEPRÉS**, 1450–1531; b. Hainaut, Belgium. He was a pupil of the celebrated Johann Ockenheim for several years in Paris. Many Italian writers

claim him as a native of Italy, which may be accounted for by his having lived there, and because of the frequent addition to his name of *Pratensis* or *Del Prato*, from a town in Tuscany. He was a singer in the pontifical chapel of Sixtus IV. Leaving Italy he was appointed *Maitre de Chapelle* to Louis XII., for whom he composed much music. The king having promised him a benefice, and having failed to grant it, Josquin wrote a motet beginning *Memor esto verbi tui*, which having no effect, he wrote another, commencing *Portia mea non est in terrâ viventium*, when Louis bestowed the benefice, and Josquin composed a third, expressing his gratitude, beginning *Bonitatem fecisti cum servo tuo, Domine*. Josquin was a voluminous composer. Many of his works are in the British museum. "He may," says Dr. Burney, "be justly called the father of modern harmony, and the inventor of almost every ingenious contexture of its constituent parts." He was buried in the church of St. Gudule.

JOSS, JOSS-STICK, JOSS-HOUSE. When the Portuguese Jesuit missionaries taught the Canton Chinese to pronounce the name of God (*Deus* or *Deos*), the word in Chinese mouths became "Joss," and the Chinese used this word to answer questions or give information concerning their deities, temples, and sticks of incense. Hence the strange term for deity in "pidgin" Chinese.

JOSELYN, JOHN, b. Kent, Eng.; sailed for America and reached Boston in 1638; came again in 1663, returning to England in 1671. In 1672 he published in London *New England's Rarities Discovered*; in 1674, *An Account of two Voyages to New England; Chronological Observations of America from the Year of the World to the Year of Christ*.

JO'TUNS, or JÆTTEN, divinities in the Scandinavian mythology, which personified various elements in the principle of evil. Their stature and strength were gigantic, but their intelligence was inferior to that of human beings, by whom in conflict they were invariably defeated. Such intelligence as they possessed was supposed to be the expression of their extreme malignity, which made them inimical to humanity, and equally so to the gods of the Valhalla. They appeared, in fact, as mythical exponents of the malign forces of nature, between which and human authority there must ever be active war.

JOUBERT, BARTHÉLEMY-CATHERINE, 1769-99; b. France; educated for the bar, but entered the army, and was second in command to Napoleon in the war in Italy. He commanded the French army in Holland, but resigned in 1799 and went to Paris, where he married Mlle. de Montholon. He was reappointed to command, and replaced Moreau in Italy, where he gained slight advantages against the combined Russian and Austrian forces, but was defeated by Suwarrow at Novi, where he fell mortally wounded. So highly was he regarded by the French directory that it was generally believed that he would have been given the supreme command in place of Napoleon, had he lived.

JOUFFROY D'ARBANS, CLAUDE FRANÇOIS DOROTHÉE, Marquis de, 1751-1832; b. Paris; disputed with Fulton the honor of first having applied steam to navigation. Witnessing the operation of a fire-engine, he believed that steam could be used for vessels on water. He made his first attempt with a small propeller on the Doubs in 1776, but the experiment was a failure. In 1783 he made another experiment on the Saone, with more success; but for want of pecuniary means and support, he failed to prosecute it. The government refusing him a patent, he went to England. Returning to France he became acquainted with Fulton, who admitted the merit of the experiments. He received permission in 1816 to form a company, and put his first steamer, called *Charles Philippe*, on the Seine; but the attempt was unsuccessful. He withdrew to the Hôtel des Invalides, and died there of cholera. His claim was acknowledged by Arago, and in 1840 by the French academy. Jouffroy published *Les Bâteaux-a-Vapeur*, and wrote for the academy *Memoires sur les Pompes à Feu*.

JOURDAN, ANTOINE JACQUES LOUIS, 1798-1848; b. Paris; was a surgeon in the army and in military hospitals, and took the degree of M.D. in Paris in 1819. He published *Traité complet des Maladies Vénériennes*, 2 vols.; *Pharmacopée Universelle*, 2 vols.; *Dictionnaire Raisonné, Etymologique, Synonymique, et Polyglotte des Termes usités dans les Sciences*, 2 vols. His translations from German, Italian, Latin, and English medical works are numerous.

JOURDAN, MATHIEU JOUVE, called *coupe-tête*, 1749-94; killed the governor of the Bastille at the time of its capture, and murdered the two body-guards of the royal family during their removal from Versailles to Paris, Oct. 6, 1789. He was also charged with having been the promoter and leader of a massacre at Avignon; and altogether his bloody deeds, and the fact that he boasted of them, being considered a disgrace to the revolution, he was condemned by the committee of public safety, and suffered death by the guillotine.

JOURNALISM. See **NEWSPAPER**, *ante*; **AMERICAN JOURNALISM**.

JOURNALISM, COMIC AND SATIRICAL, devoted to satire, humor, and the art of caricature, may be said to have established itself in the public favor first with the foundation of London *Punch* in 1841, and which was followed at intervals, in England, France, Germany, Italy, and the United States, by a great number of imitators, very

few of which gained a permanent position. Among English satirical papers have been *Judy, Fun, the Owl, the Hornet, the Tomahawk, and Vanity Fair*; Germany, *Fliegende Blätter and Kladderadatsch*. In France have been the *Charivari, Petit Journal pour Rire, La Vie Parisienne, and the Journal Amusant*. American satirical and humorous papers—*Yankee Notions, Nick Nax, Pick, the Picayune, the Lantern, Young America, Vanity Fair, Momus, Mrs. Grundy, Punchinello, Yankee Doodle, Budget of Fun* (all in New York); the *Wasp* (in San Francisco); *Die Vehme and Puck* (Germ., St. Louis); *American Punch* (Boston, Mass.); and *Puck* (Eng. and Germ.), and *Chic* (New York).

JOURNALISM, ILLUSTRATED, that system of newspaper-making whose leading feature is the pictorial representation of events and incidents, and the illustration of scenes, objects, and places, by engravings, lithographs, or photographs. The first illustrated journal approaching the character of those of the present day was the *Penny Magazine*, published in England by the society for the diffusion of useful knowledge, in 1833, and which reached a large circulation. In 1841 *Punch* was started, and the following year Messrs. Ingram & Cook founded the *Illustrated London News*, which was followed in 1843 by *L'Illustration*, published in Paris, and the *Illustrirte Zeitung* in Leipsic. The American illustrated press began with the *Illustrated American News*, New York, 1851; which was followed by the *Illustrated News*, New York, 1853. In 1855 the *Illustrated Times* was started in London, and in the same year Frank Leslie founded his *Illustrated Newspaper* in New York, which was soon followed by a number of similar publications whose line has continued with varying fortunes ever since. *Harper's Weekly* began publication in 1857; *Le Monde Illustré*, in Paris, in the same year; *La Ilustracion Española y Americana*, Madrid, 1856; *Illustrated News of the World*, Paris, 1858; *Ueber Land und Meer*, Stuttgart, the same year; and from that period to 1880 illustrated journals in Copenhagen, Montreal, Birmingham, Vienna, Milan, Melbourne, and other cities in Europe and America. The first successful illustrated newspaper published in America was the *Illustrated News*, issued in 1853 by P. T. Barnum and Messrs. Beach Bros. The art department of this paper was in charge of Frank Leslie, who applied many novel and ingenious devices to the saving of time and increasing the facility with which the work of printing illustrations was accomplished. These included, among other improvements, the use of the cylinder press with inking-table attachment; and the method of bolting blocks of wood together after engraving, thus enabling the distribution of full-page or double-page work among a number of engravers as soon as the drawing had been put on the block. The great progress in illustrated journalism which has occurred in the last ten years has been due to increased excellence in art work, and in the application of chromo-lithography. The establishment of the *New York Daily Graphic* and its successful publication since 1873 gave encouraging evidence of the possibility of applying the principle of illustrated journalism to the necessities of a daily newspaper. This was accomplished by means of a process in art which has been kept a secret from the general public, though the method is simply a particular form of lithography susceptible of execution more rapid than the ordinary. Illustrated journalism in America has issued chiefly from New York.

JOUTEL, HENRI, b. Rouen in 1651; a French explorer; was in the army when young, and joined La Salle's exploring expedition to the mouth of the Mississippi in 1684. He was placed in command of the fort in Texas, and also in St. Louis, and was with La Salle in his last expedition, in 1687, when he was assassinated. With La Salle's brother, nephew, and three others he went to Canada, thence to France in 1688. His *Journal Historique du Dernier Voyage que feu M. de la Salle fit dans le Golfe de Mexique* was published in 1713.

JOUY, VICTOR JOSEPH ETIENNE DE, 1764–1846; b. Jouy, near Versailles; at the age of thirteen accompanied the governor of French Guiana as sous lieutenant to that colony; returning to Versailles studied two years, and went to the French East Indian possessions as an officer in the Luxembourg regiment. Returning to France he joined the revolutionary party, and was rapidly promoted; but during the reign of terror, being suspected, fled to Switzerland. After the fall of Robespierre in July, 1794, he returned and was placed on the staff of the army of Paris, under gen. Menou. Soon afterwards he was arrested, then released and sent as commander to Lille; again arrested on a charge of holding communication with the English minister, but acquitted and restored to his functions. He abandoned the army at the age of thirty, in disgust, and devoted himself to literature. His first efforts were some vaudevilles with Delonchamp and Dieulafoy. But his first work that met with great success was the opera *La Vestale*, set to music by Spontini. This was very popular, and gained him admission to the academy in 1815. This was followed by the operas *Les Amazons*, with music by Mehul, and *Les Abencerrages*, with music by Cherubini, which are still performed. He wrote comedies in prose and verse, which were successful, and also tragedies, of which *Sylla* was very popular. His greatest work was *L'Hermite de la Chaussée d'Antin*, a series of essays originally published in the *Gazette de France*, and afterwards issued in 5 vols. They were much admired in France, regarded as equal to the English *Spectators, Guardians*, and *Ramblers*, and translated into English. These were followed by *France Parleur; L'Hermite de la Guyane; L'Hermite en Province*. Under the restoration he engaged in politics, and for his attacks on the government was imprisoned. In prison

he and M. Jay wrote *Les Hermites en Prison*, and *Les Hermites en Liberté*, which were much applauded by the liberal party in France. Jôuy wrote also on political economy, and two novels, *Cecil* and *Le Centenaire*. He edited for a time the *Journal des Arts*, and contributed many articles to newspapers and journals. After the revolution of 1830 Louis Philippe appointed him librarian at the Louvre.

JOVE. See JUPITER, *ante*.

JOVELLA'NOS, GASPAR MELCHIOR DE, 1744-1811; b. Gijou, Asturia, of an ancient and noble Spanish family; studied at the universities of Oviedo, Avila, and Alcala; was appointed immediately on leaving college, in 1769, judge of the criminal court of Seville; was made in 1778 chief judge of the king's court at Madrid. Here he became acquainted with Campomanes and other prominent literati of Spain, and was a member of several scientific societies. He formed the acquaintance also of Cabanus, a French adventurer, who, through court intrigue, was thrown into prison, and Jovellanos was banished under the pretext of exploring the natural resources of the Asturias. He improved his retirement in forming plans for developing the internal resources of the country, and founded the *Instituto Asturiano* for improving agriculture, working the mines, and promoting social and educational reform in Asturia. To this he devoted a large part of his official income. Cabanus being restored to the favor of Godoy, the prime minister, Jovellanos was recalled and made home-secretary of state under Godoy, who, however, soon again expelled him. Returning to Gijou he gave himself to the interests of the *Instituto Asturiano*. But in about two and a half years he was again arrested, and sent, in 1801, a prisoner to the island of Majorca, where he was kept closely for seven years, first in a Carthusian convent, afterwards in the castle of Belver. He spent his time here in study, commenced a *Flora Belverica*, and collected materials for a history of the island. On the French invasion he was recalled, and when Joseph Bonaparte became king he was offered the portfolio of the interior. Declining it he joined the patriotic party, was chosen a member of the central junta, and helped to reorganize the cortes. On the dissolution of the junta Jovellanos retired to Gijou, whence, on the occupation of the town by the French, he escaped to Vega. Feared and hated by his enemies on account of his great influence, he perished by assassination. Jovellanos was the author of numerous compositions in prose and verse. Of the latter the most prominent are the tragedy of *El Pelago*; *Pau y Toros*; the comedy of *El Delincuente homado*; a translation of the first book of *Paradise Lost*; and a collection of miscellaneous pieces. But he was distinguished chiefly as a political economist and legislator. He was a deep thinker and a brilliant rhetorician. As a writer of Spanish prose it is said that he has no equal in modern times. His *Elogios* on the eminent architect Ventura Rodrigues, and on the king Charles III., are beautiful compositions, but his greatest work, showing his political foresight and legislative sagacity, was his *Informe Sobre un Proyecto de Ley Agraria*.

JOVIA'NUS, FLA'VIUS CLAU'DIUS, b. A.D. 331; the son of Veronianus, a distinguished gen. under Constantius; of a noble Mæisian family. He was capt. of the life-guards of the emperor Julian, attending him in his disastrous campaign against the Persians. Julian having fallen in battle, Jovian was proclaimed, A.D. 363, by the army, his successor. His first task was to save his army, harassed by the Persians, and suffering greatly for want of provisions. He reached the Tigris in safety, but found it impossible to cross, exposed to attack from the Persian force. Sapor proposed terms of peace, to which, though ignominious, Jovian was compelled to yield. The terms were that the Romans should surrender their conquests w. of the Tigris, together with the fortress of Nisibis, and many other strongholds in Mesopotamia, and should bind themselves not to aid the Armenians, with whom the Persians were then at war. His troops being in great distress he submitted to the harsh terms, and marched westward towards his kingdom. He surrendered Nisibis to the Persians, the inhabitants removing to Amida, which became the chief Roman town in Mesopotamia. On his arrival at Antioch he proclaimed himself a Christian; and rescinded the edicts of Julian against the Christians, but granting protection to such as remained pagans. He upheld the Nicene, or orthodox creed, against the Arians, and restored the bishops who had suffered at their hands. Athanasius, who visited him at Antioch, he reinstated in the see of Alexandria, from which he had been driven by the Arians. Acknowledged by the various provinces, he set out from Antioch for Constantinople, stopping at Tarsus to pay funeral honors to Julian's remains. Continuing his journey in unusually severe cold, of which several of his attendants died, he reached Ancyra, where he assumed consular dignity; and a few days after came to Dadastana in Galatia. The next morning, Feb. 17, 364 A.D., he was found dead in his bed. Some attribute his death to suffocation from the fumes of a charcoal fire in his room, some to the exhalations from the plaster with which it had been newly laid, others, with more probability, to the dagger or poison of an assassin. He was 33 years of age and had reigned 7 months. Valentinian was proclaimed emperor by the army.

JOVINIAN, an Italian of the 4th c.; one of the opponents of monachism, which was strenuously advocated by the early fathers. But while opposing those who practiced celibacy and the maceration of the body by fasting, he himself remained single and lived like other monks, though even his enemies admit that his life was blameless. He

held also that Mary, after the birth of Jesus, ceased to be a virgin, that the blessedness of heaven does not depend on the merit of good works, that a Christian cannot sin willfully, but will resist and overcome the devil. He advocated his opinions first at Milan, but Ambrose forbidding their propagation, he went to Rome. He and those who followed him were condemned and excommunicated in a council held at Milan in 390, as the authors of a "new heresy and of blasphemy," and forever excluded from the church. Pope Syricus confirmed the sentence, and the emperor Honorius enacted laws against the Jovinians. Their leader was banished to the lonely island of Boa, off the coast of Illyria, where he died before 406. But his opinions spread everywhere, and it was said that several nuns in Rome married. Augustine came forth in defense of the orthodox principles and practices of the ascetics, endeavoring by sophistry to reconcile them with reason and Scripture. Jerome followed in the same defense. But notwithstanding the attacks of the three great doctors, Ambrose, Augustine, and Jerome, the heresy, as it was called, spread, and was accepted in different parts of Christendom. Neander ranks the services of Jovinian next to those of Luther.

JOVIUS, PAULUS (or GIOVIO), 1483-1552; b. at Como, of a noble family; a distinguished historical and biographical Italian writer. His name is properly Paolo Giovio, but he is better known by the Latinized form. He studied in the universities of Padua and Pavia for the medical profession, which he soon abandoned for literature. He applied himself to the Latin classics for the purpose of forming a good style. Soon after the election of Leo X. he went to Rome, was introduced to the pope, who, on reading some of Giovio's compositions, declared that, "after Titus Livius there was no writer more elegant or more eloquent," and thenceforth was his patron. He accompanied cardinal Giulio de Medici on important missions to different countries, and when his patron became pope Clement VII. he bestowed on him the bishopric of Nocera. Remaining in the capital he intrusted the charge of his see to his deputy. Giovio was present at the famous conference of Bologna in 1530 between the emperor Charles V. and the pope, when the emperor gave him the details of his expedition against the Algerine pirates, for the history which he was then writing. Paul III. did not regard Giovio with favor. That pope was zealous concerning church discipline, while Giovio was latitudinarian, if not an infidel or atheist, and the satirical poets accused him of all kinds of licentiousness. Withdrawing from the papal court he retired to his native Como, built a delightful villa, which he fancied to be like one of Pliny's villas, collected a museum, and made a picture-gallery of the distinguished men of his own and other ages. But the quiet of country life was irksome, and he visited the various courts of Italy, where his humorous conversation and genial *bonhomie* made him a welcome guest. In one of his visits to Florence he was seized with a violent attack of the gout, of which he died. He was buried in the church of St. Lorenzo, where a statue was raised to his memory. He died rich. His principal works were: *Historia sui Temporis*, 2 vols.; *Illustrium virorum vite*; *Libellus de Piscibus Romanis*; *Commentario delle Cose dei Turchi*; *Dialogo delle Impresse*; *Lettere Volgare*. The last is a collection of his letters published after his death, written in a style of jovial humor, and containing much literary and historical information concerning that age. Most of his historical works are untrustworthy, as he was disposed to favor his friends and patrons, and was too careless or indolent to verify his statements.

JOWETT, BENJAMIN, b. Camberwell, 1817; educated at St. Paul's school; elected to a scholarship at Balliol college, Oxford, in 1835, and to a fellowship in 1838; was tutor in 1842, and ordained the same year; in 1853 was a member of the commission to consider the mode of admission by examination to the civil service, of which Macaulay was chairman; elected regius professor of Greek in the university in 1855; in 1870 was elected master of Balliol college. He published a *Commentary on the Epistles of Paul to the Thessalonians, Galatians, and Romans*, and contributed to the *Essays and Reviews* an article "On the Inspiration of the Scriptures," which being considered heretical, he was tried but acquitted. His chief work is *The Dialogues of Plato translated into English, with Analyses and Introductions*, 4 vols. He received the honorary degree of D.D. from the university of Leyden in 1875.

JOWF, or D'JOWF, a province of Arabia, a dependency of Jebel Shomer, between 29° and 30° n. lat., and 39° and 41° e. long.; 700 sq.m.; pop. 40,000. It is an oasis, well watered, fertile, and has a temperate climate. The date-palm is largely cultivated, but the peach, apricot, fig, and grape grow in abundance, and are of superior flavor. Various cereals and leguminous plants also are grown. The gardens of the Jowf are noted in that part of the e. for their fertility and beauty. They are irrigated by running streams. The inhabitants are of a superior class. The principal towns are Jowf and Sekakah.

JOY, CHARLES A., PH.D., b. N. Y., 1823; was educated at Union college; graduated at Harvard law school. Later he attended the universities of Berlin and Göttingen, receiving his degree at the latter institution. In 1853 he was in Paris attending lectures at the Sorbonne, but returned to the United States the same year to accept the chair of chemistry in Union college. In 1857 he became professor of chemistry in Columbia college, New York, and remained there until 1879. He was editor of the *Scientific American*, and of the *Journal of Applied Chemistry*; contributed largely to Appletons'

New American Cyclopædia; and prepared articles on scientific subjects for many of the periodicals of the day.

JOY, JAMES F., b. N. H., 1810; educated at Dartmouth college, and settled in Detroit, Mich., 1836, where he practiced law. He became interested in railroad enterprises, and was prominent in the organization of the Chicago, Burlington and Quincy railroad, which was effected under that title in 1856. In 1866 he was president of the Michigan Central railroad, and held that position until as late as 1871. The St. Mary's Falls ship-canal was constructed by a company which he organized.

JUAB, a co. of central Utah; 900 sq.m.; pop. '80, 3,473. Much of it is mountainous, Mt. Nebo, the loftiest peak, being 12,000 ft. high. The staple is maize. But a small part is adapted to agriculture. Co. seat, Nephi.

JUAN', DON, D'AUSTRIA. See JOHN OF AUSTRIA, *ante*.

JUAN' Y SANTACÍLIA, JORGE, 1713-73; b. Orihuela, Valencia; was sent in 1733 on a small vessel to explore the coast of America. In 1735 he was appointed vice-admiral by Philip V., and accompanied Ulloa's expedition to South America for the purpose of measuring a degree of the meridian at the equator. The expedition was assisted by La Condamine and Bouguer of the French academy. Ulloa and Juan remained in Peru several years, and the results of their observations were published in 5 folio volumes. Juan wrote the scientific account of the expedition, and he and Ulloa together published a treatise on the Spanish-Portuguese meridian boundary line. Juan was an able officer of the Spanish navy, and also wrote works on nautical science.

JUAR'ROS, DOMINGO, d. about 1820; b. Guatemala. He was an ecclesiastic, and author of an important work on Central America, entitled *Compendio de la Historia de la Ciudad de Guatemala*, in 6 books.

JUBA I., d. 46 B.C., son of Hiempsal, king of Numidia, ascended the throne on his father's death, and, having quarreled with Cæsar, supported Pompey in the struggle between these two. He defeated and destroyed the army of Curio, Cæsar's lieutenant, in a fierce engagement near Utica; but was himself defeated at Thapsus, by Bocchus, king of Mauritania, and after fleeing from the battle field destroyed his own life. The kingdom of Juba was made a Roman province after his death, and the historian Sallust was appointed its first governor. It was afterwards restored to Juba II., by Octavius, in exchange for other territory. The character of Juba in the under-plot of Addison's tragedy of *Cato* is founded on that of Juba I.

JUBBULPORE, a t. of British India, in the territory of Saugor and Nerbudda, near the Nerbudda river, 200 m. s.w. of Allahabad, an important station on the East India railroad. Pop. 55,704. It is 1458 ft. above the sea, whence a road leads over the Vindhya mountains, through Belhari, to Panna in Bundelcund. It has wide and straight streets, an industrial school, and a military establishment. Several lakes and tanks are so full in the rainy season as to make the place inaccessible. The English here defeated, Dec. 19, 1817, 5,000 Mahratta troops of the rajah of Nagpore.

JUBILEES, BOOK OF, an apocryphal work, much used in the ancient church. The original Hebrew and the Greek translation were lost, but an Ethiopic version has been discovered in Abyssinia. It is called the jubilees, because it divides the biblical history of which it treats, from the creation of the world to the entrance of the Israelites into Canaan, into 50 jubilees of 49 years each, comprising 2,450 years, describing carefully every event according to the jubilee—Sabbatic year, or year in which it happened. It was designed as a commentary on the books of Genesis and Exodus, arranging minutely the chronology of the biblical history, solving difficulties found in the narratives of those books, giving more fully what was only hinted at in the sacred history, and expatiating upon the various religious observances. The author of the book is unknown, but many circumstances indicate that he was a Jew. All critics agree that it was written in Hebrew, translated into Greek, and that the Ethiopic was made from the Greek. Dillman gave a German translation from the Ethiopic, through which it has become known to Europeans. He divided the work into 50 chapters. Its exact date is not known, but critics have fixed it either in the first c. before Christ or about the birth of Christ. It is considered important to the interpretation of the Bible, and to the history of Jewish belief before the Christian era. The Greek version was made at a very early period of the Christian era, was soon lost in the western church, but existed long after in the eastern. From the 11th or 12th c. it entirely disappeared. In 1844 Dr. Krapff found in the Abyssinian church an Ethiopic translation of the Greek, a manuscript copy of which was presented to the Tübingen university. It is considered as canonical by the Abyssinian church.

JUDAH, surnamed HAK-KADOSH, the holy; about 135-192; b. at Tiberias; son of Simon, of the tribe of Benjamin; a descendant of Hillel I. While a youth he was admitted to the Sanhedrin on account of his extraordinary knowledge of Jewish law, and on his father's death was made its president. He was called rabbi, and held in the highest veneration by the Jews. He was honored chiefly as the compiler of the Mishna. His last days were spent at Sapphoris. He is mentioned as the friend of the emperor Marcus Aurelius.

JUDAH BEN SAMUEL, surnamed **HALLEVI** (Arab. **ABUL-HASSAN**), Castile, in 11th or 12th c.; a Spanish rabbi, highly distinguished as a physician, theologian, and poet. His chief work, the *Kuzari*, in Arabic, contains discourses on religion between a king of the Khazars and a Jewish rabbi. It was translated into Hebrew, Latin, Spanish, and German. His Hebrew sacred songs have been translated into German. In the 12th c. he made a pilgrimage to Jerusalem, but nothing afterwards was heard of him. According to tradition he was assassinated by a Mussulman in Palestine.

JUDAIZERS. See **EBIONITES**.

JUDAS ISCARIOT, so called to distinguish him from the other apostle, Judas or Jude, who was also named Lebbeus and Thaddeus. Of his early life nothing is known, though it is supposed that he lived in Kerieth, a village in Judea, and that his name, Iscariot, means *of Kerieth*. He became a disciple of Jesus, afterwards an apostle, and finally his betrayer. While associating with Jesus and the eleven it appears that he acted as treasurer of the little company. Whether Jesus committed that work to him, or the other disciples left it to him, or he sought the office for himself, does not appear. We learn that on one occasion when a woman broke an alabaster box of costly ointment, and anointed the feet of Jesus therewith, Judas Iscariot said, "Why was not this ointment sold for three hundred pence and given to the poor?" Upon which the historian John makes this comment, "This he said, not that he cared for the poor, but because he was a thief and had the bag, and bare (that is, took and bore away) what was put therein." Very soon after this incident we find that when the conspiracy was laid to put Jesus to death, Judas agreed to betray Jesus to the chief priests for thirty pieces of silver. From that time he sought opportunity to betray him to them in the absence of the multitude, for they feared the people, many of whom were in sympathy with Jesus. Such an opportunity was soon presented. It was the time of the annual feast of the passover. Jesus with his company of twelve had partaken of the feast, and were about to withdraw to a garden where they often resorted for quiet and seclusion, but Judas left them and went out, and having received of the chief priests and elders a band of men and officers provided with weapons and lanterns, he led them in the darkness to the spot well known to him, where Jesus had just been engaged in prayer. Judas had given a sign to his band, saying, "Whomsoever I shall kiss, that same is he: hold him fast;" and as Jesus came out to meet them, saying, "Whom seek ye?" Judas said, "Hail, master," and drew near to kiss him. Jesus replied, "Judas, betrayest thou the Son of man with a kiss?" During the trial which followed, when Judas saw that Jesus was condemned by the chief priests and delivered to Pontius Pilate, the Roman governor, he repented and brought again to the priests and elders the pieces of silver which he had received for his crime, saying, "I have sinned in that I have betrayed the innocent blood." Perhaps the matter had gone further than he anticipated, and he may have hoped to awaken in them some of the sense of wrong-doing which he was beginning to feel, and so to effect a stay of proceedings. They answered, "What is that to us? see thou to that;" and he cast down the pieces of silver in the temple and went and hanged himself. An additional circumstance is related in the Acts of the Apostles concerning the end of this miserable man. The money which he returned, the priests decided, must not be put into the treasury, being the price of blood; so they used it for the purchase of the potter's field outside the city walls as a burial place for the poor and for strangers. Peter by a figure says that Judas purchased the field with the *reward of iniquity*. This was doubtless the place in which Judas met his terrible death, and which for that reason and also as being the price of the blood of Jesus, was called *Aeldama*. This character, moving like a dismal shadow in the luminous circle of Christ's companionship, has drawn much study. Different views have been set forth as to his motives. Theories of partial excuse for him have not been wanting. It has been suggested even that he was acting in warm friendship towards his master; that, impatient with Christ's seemingly hesitating measures in asserting his rights and establishing his kingdom, Judas resolved to force a crisis of attack in which Christ would find himself compelled to resort to his supernatural power to discomfit his foes—Judas not doubting that Christ would easily overwhelm the opposers, and in the natural reaction of the popular feeling against the plotting priests, would find the whole nation at his feet acclaiming him king. Could this theory be maintained from the recorded facts there would seem to be no crime that could not be made a virtue. Doubtless, there was in this betrayal the usual mixture of motives which is common in human action, and the blinded judgment which pertains to wrong-doing; but Jesus calls this traitor "the son of perdition."

JUDAS MACCABÆUS, third son of Mattathias, succeeded the latter as leader of the celebrated revolt of the Maccabees, B.C. 166; defeated the Syrian armies and conquered Lysias and Gorgias, who opposed him with powerful forces. Establishing himself in Jerusalem he dethroned the idols, and restored the Hebrew worship, which had been expelled by Antiochus the Syrian. The struggle for supremacy was renewed by Antiochus Eupator, and although Judas defeated the Syrian armies in many engagements, he was himself finally beaten, and killed, B.C. 160.

JUDD, G. P., 1803–73; b. N. Y.; studied medicine, and in 1825 went to the Hawaiian islands as missionary physician of the American board. His connection with the mission was severed in 1842, and he became adviser and interpreter of Kamehameha III.

He organized a ministry for the king, and was his minister of finance, discharging his functions with ability and success.

JUDD, NORMAN B., b. N. Y., 1815; studied law; admitted to the bar in 1836; practiced with success in Chicago. He engaged in politics and held many important offices in the state of Illinois. He was U. S. minister to Prussia, 1861-65; member of congress, 1867-71; and afterwards a railroad president.

JUDD, ORANGE, b. N. Y., 1822; educated at Wesleyan university, Middletown, Conn.; was a teacher and lecturer, and in 1853 became editor of the *American Agriculturist*. He afterwards established a business in agricultural books, and for a number of years edited the agricultural department of the *New York Times*. In 1880 he was appointed by the president Indian commissioner. He has been a recognized authority on subjects connected with agriculture. His benefactions to the Wesleyan university have been frequent and liberal.

JUDD, SYLVESTER, 1813-53; b. Mass.; graduated at Yale in 1836; changed his religious opinions soon after leaving college; entered the Cambridge divinity school, and in 1840 became pastor of a Unitarian church in Augusta, Me., where he remained till his death. He was the author of the very popular romance, *Margaret*, of the poem *Philo*, and a volume of discourses on the *Church*.

JUDE, or JUDAS, surnamed THADDEUS, or LEBBEUS, one of the 12 apostles. He is called in the English Bible the brother of James, the translators having inserted the word *brother*, and the generally received opinion is that they are right. But most of the eminent critical authorities render the words "Judas the son of James." The name of Jude occurs but once in the gospel narrative, in the question put to Christ (John xiv. 22). According to tradition he is connected with the founding of the church at Edessa. The Syrian tradition speaks of his living at Edessa, of his going to Assyria, and being martyred in Phenicia; while Nicephorus says that he died a natural death in Edessa. He is commemorated in the western church on Oct. 8.

JUDE, EPISTLE OF (*ante*), the author of which speaks of himself as Jude, the brother of James, is not found in the oldest Syriac version of the New Testament, and in the time of Eusebius was ranked among the books which, though received by the majority, were doubted by some. Clement of Alexandria cited it under Jude's name, as the production of a prophetic mind; Origen spoke of it as being full of heavenly grace; Tertullian quoted it as Jude's work; in Jerome's day it was received among the Christian Scriptures as of divine authority, and it is found in the principal ancient catalogues of the New Testament books. The doubts spoken of concerning its canonical authority were owing partly to its brevity, which rendered it less likely to attract attention and secure a rapid circulation; and partly to its containing two statements which are not fully supported by any other known authority. The first has reference to a contention between Michael the archangel and Satan about the body of Moses; and the second attributes to Enoch, the 7th from Adam, a prophecy concerning the final coming of the Lord. Some suppose that these statements were taken from apocryphal books, and are therefore evidence that the writer of the epistle was not an inspired man. To this others reply that there is no evidence of any such quotations having been made, but that, from whatever source the statements were derived, all that the maintenance of Jude's inspiration requires is that they were true. On the question of their truth it has been said: (1) They have not been proved to be false. (2) Among the statements contained in ancient Jewish books of various sorts many were doubtless true. (3) That the promise given to the apostles of guidance into all truth necessary to make them unerring witnesses for God and Christ would save them from historical errors, as easily and fully as from errors of doctrine and opinion to which they were constantly exposed. (4) That the department attributed to Michael, appropriate even to an archangel, is supported also by Peter's affirmation concerning angels in general, and that the prophecy ascribed to Enoch is consistent with the analogy of Scripture truth.

The design of the epistle the writer himself clearly gives, saying that when thinking earnestly about writing to Christians, he perceived the absolute necessity of exhorting them to defend the truth, and to shun the errors of false and artful teachers who were striving to deceive the churches, turning the grace of God into an argument for a sinful life, and denying both God and Christ. To show that all such and their followers would be condemned, he reminds Christians that even those who had been delivered from Egypt were afterwards destroyed because of their unbelief, and that the angels who sinned were reserved to the same judgment as that which would come on the guilty cities of the plain. In like manner, he declares, would dreadful judgments be inflicted on those who were corrupting the faith and practice of the churches. He then exhorts all true Christians to remember that the coming of just such ungodly, evil, and hypocritical men had been foretold by the apostles of Christ; that they should not therefore be either surprised or disheartened, but on the contrary should for themselves be steadfast in the faith, secure in the love of God, and confident that through the mercy of Christ they would attain to eternal life; and for others should be at once compassionate towards the weak, and bold to snatch from destruction those that were ready to fall. The epistle closes with an acknowledgment of God's power to save, and an ascription to him of glory and praise.

JUDGE (*ante*). In the United States any public officer lawfully sitting by virtue of his commission, to hear and decide cases brought before him, is called a judge. The presiding officer of a court consisting of several judges is generally called chief-justice. In regard to tenure, method of appointment, and duties of judges in the United States, see JUDICIARY. A judge is debarred from sitting on a case in which he has an interest, nor can he be a witness in a case tried before him. As a matter of fact, a judge is not debarred, save by professional etiquette and tradition, from presiding over a case in which he has been counsel. So long as a judge does not overstep his jurisdiction he is not liable, either civilly or criminally, for acts performed in the course of his judicial duties, though those acts be erroneous or corrupt; but in the latter case he may be removed by impeachment.

JUDGE-ADVOCATE, the title of an official attached to military commissions, or courts-martial, whose duties are analogous to those of prosecuting attorneys in civil courts; but whose functions, in relation to military law, are also similar to those of a district attorney, or corporation counsel, in being of an advisory character. The appointment of judge-advocates for special courts rests in the authority which appoints the court, whether that be the president, the secretary of war, or the general of the army. But there is also in the U. S. army a corps of four judge-advocates, with the rank of major, who are under the general direction of the judge-advocate-general, and who can be detailed on courts-martial or military commissions, but are usually stationed at the head-quarters of the military departments, where they act as legal advisers to the department commander, and may be appointed by them to court-martial duty. The official duties of a judge-advocate during a trial by court martial or military commission, or examination by a court of inquiry, are as follows: preparation of the case for the prosecution, procuring of witnesses, administering the oath, opening the case for the prosecution with the necessary argument, questioning the witnesses, and submitting the case to the court. But besides these duties the judge-advocate has still another—seemingly anomalous in this connection—that of protecting the witness from improper or leading questions, and to that extent also acting as counsel for the accused. In the English military service the duties of the judge-advocate have been so far modified that he does not act as prosecutor, but solely in his advisory capacity in connection with the court, and as the recorder of its proceedings.

JUDGE-ADVOCATE-GENERAL (*ante*), in the U. S. military service, the chief of the bureau of military justice at Washington, with the rank of brig.gen. To him the proceedings of all courts-martial, courts of inquiry, and military commissions are forwarded for revision and record. In England the judge-advocate-general is the final legal authority for the army, and the adviser of the crown in cases where any action of the sovereign is required. His power is supreme as to reviewing the proceedings of courts-martial, etc.

JUDGES OF ISRAEL, a name given to those who at intervals directed the affairs of the Israelites during the four and a half centuries which elapsed from the death of Joshua to the reign of Saul. Their names were Othniel, Ehud, Shamgar, Deborah, Barak, Gideon, Abimelech, Tola, Jair, Jephthah, Ibzan, Elon, Abdon, Samson, Eli, Samuel. They were called *shophetim*, from a word denoting both to judge in the usual sense, and to rule or govern, a name appropriate because judging and ruling are intimately connected in the east. They were then not merely those who determined litigated questions, but persons appointed to perform various duties, which are to be ascertained from the history. It is common to consider their chief function as that of delivering Israel from foreign oppression. But all did not thus begin their career. Eli and Samuel were not military men. Deborah judged Israel before she went to war against Jabin; and whether Jair, Ibzan, Elon, and Abdon had a military command is unknown. Moreover, the nation in general had much more prosperity than adversity in the time of the judges, the whole period of foreign oppression being only 111 years—less than a fourth part of their dominion. It is true that many of these judges arose during the time of foreign oppression, and to military exploits was often due their appointment as judges; but, in general, the appointment depended on the exigencies of the times, requiring gifts or influence adequate for deciding questions between tribe and tribe, administering public affairs, and acting as the head of the people in their intercourse with their neighbors and oppressors. The judges then were faithful men who acted for the most part as agents of the divine will, regents of the invisible king of the chosen people. "They were," says Jahn, "not merely the deliverers of the state from a foreign yoke, but destroyers of idolatry, foes of pagan vices, promoters of the knowledge of God, of religion and of morality; restorers of theocracy in the minds of the Hebrews, and powerful instruments of divine providence in the promotion of the great design of preserving the Hebrew constitution, and by that means of rescuing the true religion from destruction." In nearly every case recorded the judges were appointed by the free choice of the people. The only cases of direct divine appointment are those of Gideon and Samson. The office was for life, but not hereditary, and the judge had no power to appoint a successor. Their authority was limited by the Hebrew law, and in doubtful cases they were required to consult the divine king through the priest. In great emergencies they convened a general assembly of the rulers, over which they pre-

sided, and in which they exerted a great influence. They could not levy taxes or appoint officers. Their authority was over only those tribes that elected or acknowledged them. They received no income, bore no external marks of dignity, were simple in their style of life, free from avarice, patriotic. Regarding themselves as the officers of God they in most instances strove to bring their countrymen to acknowledge his authority as that of their invisible king.

JUDGMENT (*ante*), a term expressing not only the decision or conclusion of a court in the matter of a trial at law, but also, in certain instances, conveying therewith the order thereupon, as in cases where it awards damages upon the verdict of a jury, or in the instance of what is known as a judgment debtor. Judgment *by default* is rendered in case of the non-appearance of the defendant in court to plead his cause, either personally or by counsel; and in such cases execution is issued for recovery of damages, or, if the suit be for debt, for the amount of indebtedness with costs, without further notice to the one adjudicated against. Confession of judgment is made on the withdrawal of the defendant's plea, when judgment is entered for the plaintiff; of *nolle prosequi*, when the plaintiff, after appearance in court, retires from the prosecution; judgment of *non suit* (from *non sequitur*, it does not follow) is given when the plaintiff fails to appear; judgment in error may either affirm a previous judgment, recall it on account of an error in fact, or reverse it because of an error in law; and interlocutory judgments are given during the progress of an action without concluding it, as in declaring the right of the plaintiff, without awarding damages, or judgment for the plaintiff on a plea of abatement, when it decides that the cause must proceed, and requires the defendant to improve his plea. A final judgment is one which ends the action, as a judgment for the defendant at any time, or for the plaintiff after verdict. But a judgment of *non suit* does not bar the plaintiff from beginning another suit upon the same cause of action.

JUDGMENT, FINAL (**JUDGMENT, *ante***), a point on which various theories have been held. One is that of the common school of rationalists denying a general judgment or a final judicial period, and asserting that men in this life are under a moral government, whereby, in the future world, rewards will come to the good and punishments to the wicked. Another view is that the last judgment is a process now in progress, and even continuous through all history; the history of the world being a continuous manifestation of God is therein necessarily a continuous judging of the world. The Messianic period being in the Old Testament spoken of as the "last day," the "last time," the "end of days," the "end of the world," the Jews believed that at the coming of the Messiah the heathen would be punished, and the chosen people exalted. The view of the pre-millenarians is, that to judge is to reign; and that the last judgment will begin when the personal reign of Christ upon earth begins. Another theory is that the day of judgment is a protracted future dispensation, commencing with the second advent of Christ, and continuing through the thousand years of his personal reign upon earth. The theory of Swedenborg is that the spiritual history of mankind is divided into dispensations of divine truth, i.e., into a succession of churches, and that a final judgment takes place in the spiritual world at the close of each dispensation. According to him there have been several "final" judgments; first, at the flood, to close the Adamic or antediluvian dispensation; second, at the Red sea and through the ten plagues, to close the Noatic dispensation; third, at the coming of our Lord, to close the Mosaic dispensation; fourth, at the time of the reformation, or a little after, in 1759, to close the dispensation of the first Christian church. The doctrine held in common by Protestants, Romanists, and the Greek church is that the final judgment is an event at the end of the world, when the eternal state of men and angels, good and bad, will be determined and publicly manifested; that the rule will be the light enjoyed, either from nature and conscience or from these with the law and gospel contained in the Scriptures; that the ground or matter of judgment will be, not professions, or relations, or reputation, but the "deeds done in the body," and these deeds not as external, but as man's vital, spiritual acts—"the secrets of the heart," in other words, real character; that the time will be at the second coming of Christ, and at the general resurrection; that the place (as some think) will be in the air, because the judge will come in the clouds of heaven, when the living saints will be changed, the dead saints raised, and both caught up to meet the Lord in the air; or (as others think) the place will be the new earth to which the glorified will descend with Christ. Holy Scripture, while plainly and repeatedly announcing the final judgment and establishing the principles of its process, seems to be silent on the details of time, place, and circumstances—revealing only that it will be the world's great natural, historical, and moral consummation under the ultimate manifestation of Christ in his divine humanity, and accompanying the resurrection of the dead.

JUDICIARY IN THE UNITED STATES. In other countries the judicial is more or less complicated with the legislative function; but in the United States the three departments of government, legislative, executive, and judicial, are scrupulously separated from each other. The house of lords, unlike the American senate, was until recently both a legislative and judicial body, and even now some of its members are judges. The lord chancellor, the highest judicial officer of the kingdom, exercises various powers of a political rather than a judicial character; and the master of the rolls is eligible to a seat in parliament. This investiture of the same person with both judi-

cial and legislative functions has its roots in early Saxon and Norman practices, not yet wholly outgrown. Judges of United States courts can neither serve in congress, fill the presidential chair, nor exercise any political power except that of individual voters.

The judicial power of the United States is vested by the constitution in a supreme court and such inferior courts as congress may from time to time establish. The supreme court consists of a chief-justice and nine associate justices, appointed by the president with the consent of the senate, holding office during good behavior, and receiving for their services a compensation which shall not be diminished during their continuance in office. They have the privilege (if they have been commissioned not less than 10 years) of resigning at the age of 70, and drawing their salaries through life. "The judicial power shall extend to all cases in law and equity arising under this constitution, the laws of the United States, or treaties made or which shall be made under their authority; to all cases affecting ambassadors, or other public ministers, and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more states; between a state and a citizen of another state; between citizens of different states; between citizens of the same state claiming lands under grants of different states; and between a state, or the citizens thereof, and foreign states, citizens, or subjects. In all cases affecting ambassadors or other public ministers, and consuls, and those in which a state shall be party, the supreme court shall have original jurisdiction. In all the other cases before mentioned the supreme court shall have appellate jurisdiction both as to law and as to fact, with such exceptions and under such regulations as congress shall make." (U. S. Constitution, art. 3, secs. 1, 2.) The supreme court has appellate jurisdiction over cases from the circuit courts where the matter in controversy has a value of over \$1000. By the act of 1789, c. 20, sec. 9, the United States is divided into judicial districts, and in each district a district court is established consisting of one judge resident in the district. These courts have both civil and criminal jurisdiction. In their civil jurisdiction they have the powers of a court of admiralty, and also certain extraordinary powers conferred by statute. Their jurisdiction extends over cases of salvage, seizures, prize causes, torts committed on the high seas or within ebb and flow of tide, and maritime contracts. By an act of congress passed in 1845, the district courts were given jurisdiction over contracts and torts in regard to vessels plying between ports in different states on the lakes. The extraordinary jurisdiction of the district courts extends over captures made within the waters of the United States; seizures under the U. S. laws of import, navigation, or trade; suits brought by or against a consul or vice-consul; suits brought by an alien for a tort in violation of laws or treaties of the United States, and over cases in bankruptcy. The criminal jurisdiction of the district courts is concurrent with that of the circuit courts over non-capital offenses against the United States. These districts compose ten circuits, for each of which a circuit court is established, consisting of one of the justices of the supreme court and a circuit judge or a district judge. The circuit courts have original jurisdiction in civil suits "at common law or in equity, where the matter in dispute exceeds in value \$500, exclusive of costs, and the United States are plaintiffs or petitioners, or an alien is a party, or the suit is between a citizen of the state where the suit is brought and a citizen of another state." They have original jurisdiction in cases arising from violation of the copyright or patent laws. The circuit courts have appellate jurisdiction by writs of error to the district courts or appeals from the latter. Other courts of the United States are the territorial courts established in each territory, and consisting of a chief-justice and two associate justices holding office for four years; and the court of claims, consisting of a chief-justice and four associates, with jurisdiction to pass upon all claims resting upon an act of congress, or a department rule, or contract with the United States.

In the several states of the United States the judiciary is either appointed by the executive, or, more commonly, elected by the legislature or directly by the people. The organization of the judiciary is different in the different states, and does not permit of general description here. In the older states the judges were for a long time generally nominated by the governor and confirmed by the senate, holding office during good behavior. To this, however, there was at least one exception; in Vermont, from a very early day, the judges were chosen annually by the legislature; now they are chosen in the same way biennially, the legislature meeting but once in two years. This method of appointment, which at the time of its adoption was contrary to the received traditions, and therefore regarded with distrust as likely to impair the dignity and independence of the judiciary, is admitted to have worked well. As a general rule, the judges have been the men best fitted for judicial station, and the courts have accordingly maintained a very high character. Nor have the judges been changed more frequently there than in states where they have been appointed in the old way and for longer terms. Of late years, in many states, the practice of electing judges for longer or shorter terms by popular suffrage has been adopted. In some cities of the largest class it has happened that incompetent and even corrupt men have secured election to the bench. But it is equally true that, under the old system of appointment, unfit men have attained judicial station as the reward of party service.

In this country it is the universal rule that a judge is not liable to a civil action for

acts done in the performance of his legal duties; but for any high crime or misdemeanor he may be impeached. Though the powers to be exercised by any branch of government, national or state, in this country, are carefully defined in the written constitutions, still the interpretation of those constitutions gives rise to very important and delicate questions, which, under our system, are authoritatively settled by the courts of final resort. This power of interpreting the fundamental law is of the highest importance. It is the confirmed habit of the American people to regard as conclusive and binding for the time being the decisions of the judiciary upon questions of constitutional interpretation. Yet such decisions are always liable to review and reversal by the courts themselves. A striking example of this is furnished in the celebrated "Dred Scott" case, wherein it was decided by the supreme court of the United States that negroes were not citizens, and therefore that they might be constitutionally held in slavery; but that decision has no force or authority in the same court as now constituted, and has been effectually, though not formally, reversed.

JUDICIUM POPULI (*judgment of the people*). In the early Roman days a custom prevailed of submitting to the people dissensions between public officers, accusations against them, etc., as matters of public interest. It is supposed that the *judicia publica* of later days were evolved out of this custom. We know that in ancient Greece and Rome the people were the judges, and it was only because all were not willing to serve in such a capacity that lots were drawn. The earliest evidence which we possess on this subject points to the fact that actions brought by private individuals in defense of their private rights, and resting on special laws, were adjudged by special magistrates, while subjects of public interest (*judicia popularia*) were decided by the popular voice in the popular assembly. In due time the increase of statute laws caused the submission of large numbers of cases to private tribunals, and the *judicia populi* were replaced by the *judicia publica*. The legends of early Rome assert that the kings presided in person over the popular tribunals; but as early as B.C. 508 we find magistrates appointed, called *quæstores* or *quæstores rerum capitalium*, who, although at first chosen for special cases, were soon endowed with permanent judicial functions (*quæstores perpetui*). After B.C. 149 the prætor became president of the popular assembly. Additional prætors became necessary from time to time until the full number of 9 was reached in the reign of Sulla, each with jurisdiction over a particular class of offenses. This was the foundation of the criminal courts. The accuser might be any citizen cognizant of the facts, but the *judices* (judges) were chosen by lot. Verdicts were given by ballot and were called *leges*, and supposed to be binding in all similar cases of offense, though they were not always followed. Many contests arose as to the designation of the *judices*; 350 names were ordered by the *lex Culpurnia* to be inscribed on tablets, and from these the judges were selected by lot. From 104 B.C. no one who had been tribune, quæstor, or triumvir, no senator or near relation of a senator, no non-resident, and no one under 30 or over 60 years of age, was eligible for judicial office. It was the prætor's office to choose 450 *judices* each term, who were drawn in each separate case individually by lot. The *lex Plautia*, B.C. 89, allowed the *judices* to be of any class, but the *lex Aurelia*, B.C. 70, limited them to three classes—senators, equites, and tribuni ærarii. In Augustus's reign the ordinary number of judges in each case was seventy.

JUDSON, ADONIRAM, D.D., 1788-1850: b. Mass.; graduated at Brown university, 1807; at Andover theological seminary, 1810. Reading Buchanan's *Star in the East* while in the seminary, he was inspired with missionary zeal, and in behalf of five other students and himself he addressed a letter to the General Association of Massachusetts (Congregational), expressing their wish to labor among the heathen, and asking advice. This resulted in the formation of the American board of commissioners for foreign missions. Mr. Judson was sent to confer with the London missionary society and ask their aid. On the voyage he was captured by a French privateer, and thrown into prison at Bayonne, but when released prosecuted his errand. After his return he, with Messrs. Newell, Nott, Hall, and Rice, were appointed by the American board as missionaries to India or Burmah. Mr. Judson married Miss Ann Hasseltine. He was ordained Feb. 6, 1812, and Feb. 19 they sailed for Calcutta. Arriving, they were ordered by the East India government to return home in the vessel which brought them; and, though this demand was modified, they were required to leave soon. Mr. and Mrs. Judson having changed their views in regard to baptism, were immersed by Dr. Ward of Calcutta. This, with other results, awakened among the Baptists of America new interest in missions, and led to the formation of the American Baptist missionary union. Mr. and Mrs. Judson went to the isle of France, afterwards to Madras, with the design of reaching Penang, but, being thwarted in their wishes, took passage for Rangoon. Here, alone and without assured means of future support, they entered upon the study of the language. The care of the mission was assumed by the Baptist union. Within a few years they gathered a church of 18 members, and many natives were impressed by their lives of helpful kindness and their Christian instructions. The government, however, had given some tokens of disapproval. Dr. Price, a physician, having joined the mission, was sent for by the king to come to Ava, the capital, and Dr. Judson removed thither to act as his interpreter. War breaking out between the East India company and Burmah, the foreign residents at Ava endured great perils and hardships. Dr.

Judson was arrested at his dwelling, bound with chains, thrown into the death-prison, and subjected to cruel indignities and barbarities. By entreaties and presents his wife sometimes obtained the privilege of ministering to him in the prison, without which he must have died from hunger and suffering. After nearly two years he was released, in Feb., 1826, on the demand of gen. sir Archibald Campbell. He commenced a new mission in Amherst, but an embassy being sent thence to negotiate a treaty which it was hoped would secure religious toleration, his services as interpreter were again required in Ava. During his absence his wife died, worn out by protracted toils and exposures, and by successive attacks of malignant fever. In 1827 he removed to Maulmein, where he found Mr. and Mrs. Wade had arrived before him. Here he erected a zayat on a public thoroughfare, where he spent most of his time, preaching or reading the Scriptures to every one who came to him. Mr. Wade did the same in another part of the city. Much light went forth from these centers. A church was formed. The converts were sometimes tested by severe opposition. Dr. Judson took several trips into the interior of the country, and shared in the remarkably interesting work among the Karens. In 1834 he married Mrs. Boardman, who had been a most earnest laborer, both as associated with Mr. Boardman and after his death. In 1839 Dr. Judson was disabled from speaking and threatened with serious pulmonary disease. He took a short voyage, and another in 1841 on account of sickness of the whole family, and in 1845, as the only prospect of life for Mrs. Judson, they all embarked for America. Mrs. Judson died off St. Helena, and her remains were interred on the island. Dr. Judson was received on his arrival in America by Christians of every name with great warmth of affection and esteem. While seeking some one to write a memoir of Mrs. Judson he met Miss Chubbuck, a writer well known in America under the name of "Fanny Forester," to whom he committed the undertaking. The acquaintance formed while this work was in progress led Dr. Judson to ask Miss Chubbuck to go with him to Burmah. They were married, and in 1847 we find them in Rangoon. Here he gave himself partly to the preparation of a dictionary, for which his accurate knowledge of the language qualified him, and to which he had often been urged, and partly to Christian teaching. In 1850, his health having declined almost beyond the possibility of recovery, he was carried in a litter on board ship, in the hope that, as before, a voyage would benefit him. Mrs. Judson was unable to take the voyage with her husband. Mr. Ranney, the mission printer, and a faithful Bengalee servant, accompanied him. He revived a little after going out to sea, but was soon much worse. Still he said, "I feel too much life in me to believe that I shall die at present." But his work was near its end. He died, and his body was committed to the ocean, April 12, 1850, scarcely three days out of sight of the mountains of Burmah. Numerous converts, a corps of trained native assistants, the translation of the Bible and other valuable books into Burmese, and a large Burmese and English dictionary nearly completed, are some of the direct fruits of his 37 years of missionary service.

JUDSON, ANN HASSELTINE, 1789-1826; b. Mass.; educated at Bradford academy, where she developed superior mental endowments, and a decided religious character. In 1812 she married rev. Dr. Adoniram Judson, whom she accompanied to Burmah, became an efficient missionary at Rangoon, and shared with great fortitude his trials and sufferings. In 1821 her health failing, she embarked for America, stopping awhile in England. While at home her history of the Burman mission, commenced in London, was published, and an edition published in England. With health partially restored she returned to Burmah in June, 1823, and a new mission was commenced in Ava. War breaking out between Burmah and England, Dr. Judson having been captured, fettered, and committed to the death-prison, she was confined in her own house under guard of ten ruffianly men, deprived of her furniture, and most of her articles of property. On the third day, being released, she began to devise means for her husband's liberation. She followed him from prison to prison, ministering to his wants, trying to soften the hearts of his keepers, to mitigate his sufferings, interceding with government officials or with members of the royal family. For a year and a half she thus exerted herself, walking miles in feeble health, in the darkness of the night, or under a noon-day sun, with a babe of three months in her arms. By her untiring entreaties, the offer of large presents, and finally the demand of sir Archibald Campbell, Dr. Judson's liberation was effected. In the midst of her efforts she was attacked with malignant fever, and her life was despaired of. After regaining their freedom a new mission was commenced at Amherst. Dr. Judson immediately left for Ava as one of an embassy sent to negotiate a new treaty, and in his absence a remittent fever attacked her, already enfeebled by sufferings and disease, and after 18 days ended in her death. She was a woman of earnest piety, self-sacrificing devotion, vigorous intellect, indomitable perseverance, and unaffected dignity and refinement.

JUDSON, EMILY CHUBBUCK, 1817-54; b. N. Y.; was well educated; taught a seminary for girls at Utica, and sailed for Burmah as the wife of the rev. Dr. Adoniram Judson. She was a popular writer, contributing articles of poetry and prose under the pseudonym of "Fanny Forester" to the *New York Weekly Mirror*, the *Knickerbocker*, and the *American Baptist Magazine*. She wrote also Sunday-school books. Dr. Judson having died, she returned in 1851 to the United States in impaired health, and devoted herself

mainly to the revision of the memoirs of her husband by president Wayland. Her essays, sketches, and poems in the *Mirror* were collected under the title of *Alderbrook*, and her domestic poems under that of *Olio*. Her other works in prose were *The Kathayan Slave*, and *Memoir of Mrs. Sarah B. Judson*. Some of her best poems were composed in Burmah.

JUDSON, SARAH HALL (BOARDMAN), 1803-46; b. N. H.; married in 1825 the rev. George Dana Boardman, and embarked July 16 for Calcutta. In consequence of the war in Burmah they remained in Calcutta until 1827, when they embarked for Burmah, and commenced a mission at Maulmain, which became the chief seat of Baptist missions in Burmah. From this they were transferred in 1828 to Tavoy, among the Karens, where in two years he died. She continued her missionary work, making tours in the Karen wilderness, "through wild mountain passes, over swollen streams and deceitful marshes, and among the craggy rocks, and tangled shrubs of the jungle." Sitting in the zayat, hundreds gathered around her, and she instructed them through an interpreter. In 1834 she was married to Dr. Adoniram Judson. She translated part of *Pilgrim's Progress*, several tracts, and a hymn-book into Burmese, and before a mission was established among the Peguans, she learned their language, and superintended the translation of the New Testament and the principal Burmese tracts into the Peguan tongue. She also contributed valuable articles to the Burmese newspapers. Her health having failed, she sailed for America with Dr. Judson in 1845, and died on shipboard in the port of St. Helena, and was buried on the island.

JUEL, NIELS (Nicholas), 1629-97; b. Denmark; a naval officer; served with Von Tromp and De Ruyter in the Dutch navy. In 1659 he had command of the Danish fleet engaged in the defense of Copenhagen, which was attacked by the Swedes. In 1676 he distinguished himself in a naval victory which resulted in the capture of the island of Gothland, and the following year totally defeated the Swedes in a desperate sea-fight, for which success he was made grand-admiral-lieutenant, and received other honors and emoluments.

JUGGLERS (*ante*). The Hindu jugglers have long been celebrated for the performance of feats which were quite inexplicable to the uninformed. Probably the most comprehensive exhibition of these feats in recent times occurred during the visit of Albert Edward, prince of Wales, to India in 1875-76, when the most expert Indian jugglers exhibited their skill before him. Both the Chinese and the Japanese are skilled jugglers, though with these people there is less of the absolutely mysterious, and more that is the result of agility and practice in their feats, than among the Hindus. The tricks of swallowing fire, expelling marvelous lengths of ribbon from the mouth, sword-swallowing, ball-catching, plate-spinning, and practice with fans are performed equally well by the jugglers of most of the oriental nations. The celebrated "basket" feat, and the trick of causing almost instantaneous vegetation, the seed being planted, and the tree growing to maturity, budding, blossoming, and coming to fruit under the eye of the spectator, are juggling efforts which are peculiar to the Hindus. The jugglers of civilization, such as Houdin, the fakir of Ava, professor Anderson, signor Blitz, Heller, Herrmann, and others, have gained their reputation mainly by skill in *legerdemain*, and by adroit concealment of the means and appliances used, either through the employment of confederates, or by machinery. The "mysterious disappearance," the "box trick," the "aerial suspension," and the "second sight" trick, are accomplished by such means. The term juggler originated in the name of the instrument performed upon by the *jongleur*, this being a sort of hurdy-gurdy. The performer accompanied troupes of wandering minstrels, and the better to add to his own attractiveness, acquainted himself with certain tricks, acrobatic exercises, and other amusing conceits. It occurred that these latter features became the most popular portion of the performance, and the distinct specialty arose. The value of science to the modern juggler and conjurer is unquestioned; yet the most extraordinary and altogether inexplicable tricks are performed with the least mechanism. Chemistry and optics have played a large part in modern magic, as has also automatic machinery; witness "Pepper's ghost," and the "Psycho" of Mr. Maskelyne in London. The various phenomena of spiritualism, animal magnetism, and psychology, though many of them akin in their nature to those produced by jugglery and *legerdemain*, are really not to be properly considered in this place. Such are the results produced by Mr. Home, Foster, and the Davenport brothers, including table-tipping and rapping, the *stigmata*, levitation, and the automatic performance of musical instruments.

JUJUY', a province of the Argentine Republic; 35,844 sq.m.; pop. '69, 40,379. It is bounded by Bolivia on the n. and w.; by the Gran Chaco on the e. and on the s. by Salta. An elevated plain comprises all the n.w. portion, which is a continuation of the great Bolivian table-land, terminating in a mountain chain, the peaks of which are covered with snow, and rise to the height of 14,000 feet. On the east side of the range the surface slopes gradually towards the Chaco plains, interspersed by a few inconsiderable mountains. This district is very fortunate in water supply, being fertilized by several rivers, the principal being the Rio Grande, which effects a junction with the Bermejo s. of Oran. The puna, or elevated plain, has two large lakes, Toro and Casabindo; the latter furnishes an immense quantity of salt; asphalt, gold, silver, iron, quicksilver, and petroleum are plentiful in the district; the vegetation is luxuriant,

and it abounds in timber; rice, maize, and sugar are largely cultivated; woollen manufactures are carried on, and industries of every kind are productive. Every town in the province possesses a school, yet at the census of '69, out of the entire pop. of 40,379, only 4,309 could read, and but 3,376 could write.

JUKES. The name (pseudonym) adopted by the prison association of the state of New York to signify a family whose history displayed an exceptional condition in its relation to crime, pauperism, and disease, illustrating heredity. The family indicated descended from a woman commonly described as "Margaret, the mother of criminals," and originated in the interior of the state of New York, in what would appear to have been a positive crime-center, from which the ramifications of this family line spread in all directions. The attention of the N. Y. prison association having been directed towards this remarkable case, a careful examination and analysis of the family record resulted in tracing it to the sixth generation, with definite conclusions as to the processes by which crime and pauperism are perpetuated, such as had never before been reached in any known instance. The facts in the case of the family under consideration showed that the aggregate number of descendants reached 1200 persons; of whom 709 were traced, and the incidents of their career tabulated. Of these, 280 received public charity and 76 were punished for crime, while a majority of all were offenders against virtue, and a large proportion diseased. An ingenious calculation sets forth a loss of a million and a quarter dollars to the commonwealth in 75 years through the mode of living and offenses of this family. In 1877 a report of this remarkable case was made to the prison association of N. Y. by R. L. Dugdale, which was published.

JUKES, JOSEPH BEETE, 1811-69, b. England; educated at Cambridge, and entered upon a course of practical investigation into geological science. He was geological surveyor of Newfoundland in 1839, and was appointed in 1842 naturalist of the surveying expedition of H. M. S. *Fly*, engaged in the examination of the e. coast of Australia. In 1846 he was employed in the geological survey of Great Britain, and contributed to the official report special memoirs on certain districts. He was director of the geological survey of Ireland in 1850, and afterwards professor of geology in the royal Dublin society and the royal college of Dublin. Prof. Jukes wrote the article "Geology" for the *Encyclopædia Britannica*, 8th ed., and several important works on the same subject.

JULIAN or JULIANUS, CESARINI, 1398-1440; b. Rome; descendant of a noble Italian family, and one of the most illustrious in the church of Rome in the middle ages; educated at the university of Perugia, and appointed to a professorship at Padua. The dissensions and disorders in the Roman church in the 15th c. required men of great decision and energy, and pope Martin V., recognizing the eminent talents of the young Julian, summoned him to his aid, and appointed him apostolic prothonotary. As the companion and assistant of cardinal Brenda he was sent to Bohemia to bring back the Hussites to allegiance to the church. The mission failed, but for his great services he was made in 1426 cardinal of Sante Angelo. He was sent to represent the pope at a diet in Nuremburg and at the council of Constance at Basle. It was determined to extirpate the Hussites, and before the meeting of the council of Constance, Julian put himself at the head of an army of crusaders, whom he in vain endeavored to fire with religious zeal and patriotic devotion against the Hussites. Repairing to the council of Basle he was made its president, and exerted himself to win back the Hussites by peaceful measures. He relied with confidence on the influence of the council. Eugenius the pope was determined to abrogate its decision, but Julian was opposed to this, and defended the independence of the council and its superiority over the pontiff. But while seeking reform within the church, and contending for the supremacy of the council over the pope, he faithfully adhered to the pontificate, defending the cause of the pope against the attacks of many leaders of the church. Finding the council unwilling to meet his views, he changed his course and became a firm adherent of Eugenius. The council now found itself at variance with its able president, and the church threatened with a great schism. In 1437 a bull was issued ordering a synod at Ferrara to consider the question of uniting the eastern and western churches. Julian, resigning the presidency, left Basle and hastened to Ferrara. The sudden change of Julian from an opponent to a friend of Eugenius has led some to doubt his sincerity. But it can be easily accounted for by his earnest desire for the union of the eastern and western churches and the healing of schisms. He has, however, been charged with duplicity towards the prelates of the eastern church in the council of Florence, to which place the assembly was removed from Ferrara. For his services to the papacy Eugenius made him bishop of Frascati, and in 1443 appointed him legate to Hungary. He was killed in a war with the Saracens.

JULIAN, GEORGE WASHINGTON, b. Indiana, 1817, and though receiving only a common school education became a teacher, and afterwards studied law and was admitted to the bar. He entered politics, and became a member of the state legislature of Indiana in 1845, and a member of congress four years later. He adopted free-soil principles, and was on the presidential ticket headed by John P. Hale in 1852. He was one of the founders of the republican party, was again in congress from 1861 to 1869, and became an ardent advocate of female suffrage. In 1872 he joined the Greeley (liberal

republican) movement, and from that point changed his politics, and is now known as an ardent democrat.

JULINDER DOOAB. See **JULLINDER**, *ante*.

JULIUS I., d. Rome, 352; was chosen pope 337, and supported Athanasius in his controversy with the Arians, even to the extent of causing his approval by a council summoned in 342, while he addressed a letter in his defense to the church of Alexandria. The eastern bishops antagonized the pope as to this action, and not being able to come to an agreement with him, excommunicated him.

JULIUS, NIKOLAUS HEINRICH, 1783-1862; b. Germany; studied and practiced medicine, but devoted himself to investigations of the management of the prisons of different countries. For this purpose he traveled in Europe and in the United States, and wrote and edited a number of works on prison reform, etc., including *Die Amerikanischen Verbesserungssysteme; Nordamerikas Sittliche Zustände*; and edited the *Jahrbuch der Straf und Besserungsanstalten*; and the *Magazin der Ausländischen Literatur der Gesammten Heilkunde*. He also made a German translation of Ticknor's *History of Spanish Literature*.

JULLIEN, LOUIS GEORGES, 1812-60; a French musician. He was an accomplished violinist at the age of 6 years, and at 18 was admitted to the Paris conservatoire to study under Cherubini. He directed promenade concerts in London for many years, and wrote an opera for Covent Garden theater, called *Pietro il Grande*. He visited the United States with a large orchestra in 1853, and gave popular concerts in the chief cities. The latter portion of his life was unfortunate, and he died in a charitable institution in great poverty. He was a clever composer of dance-music, and a skillful and magnetic orchestral leader.

JUMPERS, a name given to those who believed that religious worship should be accompanied with leaping and dancing and other bodily agitations. They are said to have originated in the congregations of Whitefield in the western part of Wales about 1760, and to have had followers among the Quakers and Irvingites. They are called also Barkers, because they accompany the leaping and dancing with groans and incoherent utterance. Discountenanced in England they emigrated to the United States, where, in Pennsylvania, Ohio, and the extreme west they have some adherents. Evans, in his *Sketch of the Denominations of the Christian World*, gives an account of their exercises, which he witnessed.

JUNAGUR, a t. of Hindustan, 235 m. n.w. of Bombay, in the province of Gujerat, possessed by an independent native chief, now one of the British allies. In 1808 he and other chiefs agreed with the Bombay government to oppose piracy, and allow free commerce with British vessels on the payment of the stipulated duties. This chief, styled the nawaub of Junagur, has a territory containing a population of 284,300.

JUNCTION CITY, capital of Davis co., Kansas, 71 m. w. of Topeka, at the confluence of Smoky Hill and Republican rivers, and on the Kansas Pacific railroad at its junction with the Junction City and Fort Kearney railroad, and the n.w. terminus of the Neosho division of the Missouri, Kansas and Texas railroad; pop. 2,128. It has an active trade with the surrounding country. It contains 6 churches, a court-house, hotels, a national bank and a savings bank, a United States land office, weekly newspapers, flour-mills, factories for carriages and farming implements.

JUNEAU, a co. of southern central Wisconsin, bounded e. by the Wisconsin river; watered by the Lemonweir, Yellow, and Baraboo rivers; intersected by the Milwaukee and St. Paul railroad; 820 sq.m.; pop. '75, 15,300. The surface is uneven and extensively covered with forests of pine, sugar-maple, and other trees. The soil is fertile. The staple products are wheat, maize, hay, hops, and lumber. Co. seat, Manston.

JUNE BERRY, *Amelanchier Canadensis*, a shrub, indigenous to Canada and the United States, which is largely cultivated for its fruit, a berry of rich purple color, sweet in flavor, and of the size of a currant. The characteristics of the shrub are similar to those of the apple and pear, but it is found in many varieties, which offer considerable differences. It varies in height from 3 or 4 to 30 ft., and bears different names in different parts of the country, being known as the shad-bush, the service-berry, and the mountain whortleberry.

It is cultivated in ornamental gardening, as it bears a white flower in abundance.

JUNG, JOACHIM, 1587-1657, b. Germany; a distinguished naturalist and writer on scientific subjects. He was professor of mathematics at Giesen and Rostock, practicing also as a physician. His writings were voluminous, but a number of them were destroyed by fire. A collection was made of those extant by Albrecht in 1747, and published as *Opuscula Physica Botanica*. While he studied and wrote upon philosophy, mathematics, mineralogy, and invertebrates, he was specially noted for his knowledge and ability as a botanist, and is said to have antedated Linnaeus in devising the binomial nomenclature for plants. As a philosopher he ranked among the first of his age, being rated by Leibnitz with Copernicus, Galileo, and Descartes.

JUNG-BUNZLAU, or **BUNZLAU**, a t. of Bohemia, 32 m. n.e. of Prague, on the Iser and on a railroad; pop. '69, 8,695. It is built near the site of an old town founded by

Boleslas I., and destroyed in the Hussite wars. It has 16 churches, a monastery, a gymnasium, an old castle, built, it is said, in the 10th c. by Boleslas II., and now used for barracks; also manufactures of cotton and woolen fabrics and leather.

JUNGHUHN, FRANZ WILHELM, 1812-64; commenced his professional career as a surgeon in the Prussian army; afterwards joined the French forces in Algeria, and finally settled in one of the Dutch colonies in Java. In the latter country he made valuable researches into the geological, geographical, and botanical resources of the land, and his published works upon the subject are highly prized. He visited Europe in 1849, but returned to Batavia, where he died. His principal works are: *Java, seine Gestalt; Pflanzendecke und innere Bauart; Die Battalonder in Sumatra; Landschafts-ansichten von Java*; and an unfinished description of the plants and fossils of Java, *Plantæ Junghuhnianæ*.

JUNGMAN, JOZEF JAKOB, 1773-1847; b. Bohemia; educated at the university of Prague; was teacher at the gymnasium of Leitsmeritz, 1799-1815; professor at Prague, 1815-45. He published in 1825 a history of the Bohemian language and literature, and in 1835 a complete Bohemian-German dictionary.

JUNIATA, a co. of s. central Pennsylvania, watered by the Juniata, and traversed by the Pennsylvania railroad and canal; 360 sq.m.; pop. '70, 17,390. The surface is mountainous, a large part covered with forests, and the valleys are very fertile. The staples are wheat, oats, maize, potatoes, and hay. The county contains slate, sandstone, and limestone. The chief articles of manufacture are farming implements and carriages, and there are several tanneries, flour and saw-mills. Co. seat, Mifflintown.

JUNIATA RIVER, in central Pennsylvania; rising near Altoona. It is formed by the Franktown branch and the Little Juniata, which unite at Petersburg. It runs s.e. through Huntingdon co. and n.e. through Mifflin co., and enters the Susquehanna river at Duncannon, 14 m. above Harrisburg. Including the Franktown branch it is 150 m. long, and has through nearly its whole course some of the most grand and picturesque scenery of the state. It breaks through or crosses several mountain-ridges, and waters several valleys. The Pennsylvania railroad follows its windings from its source to its mouth, crossing it several times.

JUNIUS, FRANCISCUS (FRANÇOIS DU JON), 1545-1602; b. Bourges, France; educated for the legal profession, but, becoming interested in the questions of the reformation, devoted himself to the study of theology, and embraced the doctrines of Luther. He was for some time pastor of the Walloon church in Antwerp, and took a leading part among the reformers of the Dutch church, but was driven from his position and forced to fly to Germany. He was subsequently engaged with Tremellius in a Latin version of the Scriptures, which is still highly prized by commentators, and which has been reprinted many times.

JUNIUS, FRANCISCUS, 1589-1677; b. Heidelberg; studied the principles of military engineering, and for a while was in the army; retiring from his profession in 1609 he devoted the remainder of his life to study. He visited England in 1620; was appointed librarian to the earl of Arundel, and held that office for thirty years, during which time he studied the Teutonic languages. His greatest work was his *Glossarium Gothicum*, in five languages, the English portion of which has been issued separately as *Etymologicum Anglicanum*; he also wrote *De Pictura Veterum*, with an English translation by himself, and published an edition of the *Gothic Gospels of Ulfilas*, with a commentary. He visited Germany, 1650, and died in the house of his nephew, Isaac Vossius, at Leyden, leaving his valuable MSS. to the Bodleian library, Oxford.

JUNKIN, GEORGE, D.D., LL.D., 1790-1868; b. Penn.; graduated at Jefferson college, Penn., and was for many years pastor of churches at Milton and McEwensville, Penn.; was successively president of Lafayette college, Miami university, and Washington college, Va. (now Washington and Lee university), which last position he relinquished at the beginning of the rebellion on account of his loyalty to his country. His vigor and efficiency were shown in his work as founder and first president of Lafayette college (q.v.), supplying the money for salaries and current expenses for nine years. He was a prominent adherent of what was termed "Old School" theology; and, besides his volumes on doctrinal and biblical subjects, he wrote many articles for papers and magazines.

JUNOT, LAURE, Duchess of Abrantes, 1784-1838; b. France, of a family named Permon; married gen. Junot in 1800. She was a leader among the beautiful and witty women of the court of Napoleon I., her *salon* being frequented by the most prominent personages in political and social life in Paris. After the fall of Napoleon she devoted herself to historical writing, and published successively *Mémoires sur Napoléon; Mémoires sur la Restauration*; and *Souvenirs d'une Ambassade en Portugal*. Despite the interest created by these works their author fell into misfortune, and died in a charitable institution in Paris. Her life was notable, however, for the boundless extravagance of her habits, and to this fact must be attributed mainly its unfortunate conclusion.

JUPITER (ante), the largest planet in our solar system, having a mass in excess of all the other members by nearly three-fifths. Its orbit is about five and a half times as far from the sun as that of the earth, or at a mean distance of 475,692,000 m., and its

eccentricity is considerable, the planet's greatest and least distances from the solar center being 498,639,000 and 452,475,000 m. respectively. The planet's mean distance from the earth, when in opposition, is about 361,000,000 m., and it moves around the sun in 11 of our years and $314\frac{2}{100}$ days, so that the interval between its returns to opposition has a mean value of 398,867 days, and its orbit is inclined to the ecliptic about $1^{\circ} 18' 40.3''$. The mean diameter is about 85,000 m., with a polar compression of about $\frac{1}{14}$, according to measurements by Mr. Main, thus exceeding the earth in volume a little over 1233 times. One of the distinguishing features of the planet is the belts, or stratified changeable bands crossing the disk in a generally parallel direction with the plane of the orbit. The number of these belts varies, there sometimes being only one, while at times the whole disk is covered; but there are usually three prominent bands or zones. Months will sometimes pass without any remarkable change in their appearance, when suddenly considerable alterations will take place in a few hours. The first observer of these bands was Huygens who published an account of them in 1659, with his discovery of similar bands on Mars, and of the rings of Saturn. Cassini afterwards made extended observations upon these bands, and also upon matters relating to the planet. There are also certain spots observable upon Jupiter's disk, the first one being discovered by Hooke in 1664, and which he observed to travel from e. to w. in the course of two hours over a space about equal to half the diameter of the planet. Cassini afterwards, at the Paris observatory, assigned a nearly correct rate of motion, by which he was enabled to determine very nearly the diurnal rotation of the planet, 9h. 56m. Airy, late astronomer royal of England, made an estimate of 9h. 55m. 25s., and Maedler another, which is regarded as the most correct, partly because of the number of observations which were made a basis of calculation. His estimate is 9h. 55m. 26.6s. The observations of Cassini, subsequent to 1666, indicated that the spots, besides rotating with the planet, have a certain degree of motion on its surface, and the elder Herschel established the correctness of these observations. These spots have at times been regarded as being permanent, and the one discovered by Hooke has sometimes been called the "old spot"; but they are now regarded as changeable and the effect of cyclonic disturbances in a deep atmosphere, or beneath it, and as having somewhat the nature of sun spots; and the phenomena of the belts are also thought to be connected with causes resembling those in the solar atmosphere, or gaseous envelope.

The inclination of Jupiter's equator to the ecliptic is $3^{\circ} 5' 30''$, which would fix the changes of the seasons within narrow limits, were the planet existing under other circumstances resembling those of the earth; but as the temperature of Jupiter is above redness (how far above is not known), the sun's rays, at its immense distance—five and a half times that of the earth, can hardly be taken as an element of its surface heat. Jupiter has four satellites or moons. The first moon has a mass compared to that of the planet of .0000173281, and revolves in an orbit having no sensible eccentricity at a mean distance of 6.04853 times the planet's equatorial radius, in 1d. 18h. 28m., earth time. The second moon has a mass compared to that of the planet of .0000232355, and revolves in a similarly non-eccentric orbit at a mean distance of 9.62347 times the planet's equatorial radius, in 3d. 13h. 14m., earth time. The third moon's mass is comparatively .0000884972; it revolves in an orbit of small but variable eccentricity at a mean distance of 15.35024 times the planet's equatorial radius, in 7d. 3h. 43m., earth time. The fourth moon's mass has a comparative value of .0000426591, revolving in an orbit of greater eccentricity than the third, at a mean distance of 26.9983591 times the planet's equatorial radius, in 16d. 16h. 32m., earth time. From the micrometric observations of Struve at the Dorpat observatory, the following are the estimated diameters of these satellites. In the order above given, first, 2,429 m.; second, 2,180; third, 3,561; and the fourth, 3,046. Their densities must, therefore, differ, the second having nearly double the density of the first, and considerably more than that of the third. Indeed, the density of the first satellite is only about one-fifth of that of the earth, and less than one-fifth more than water. The density of the second is only about two and one-fifth times that of water, but they all have a density greater than that of the planet, which is a little less than one-fourth of that of the earth. On account of the slight inclination of Jupiter's equator to the ecliptic, and the fact that the planes of the satellites' orbits vary but little from the plane of the equator, all of them except the first (which sometimes escapes), suffer an eclipse at every revolution. The mean duration of the eclipses are respectively $2\frac{1}{4}$, $2\frac{3}{4}$, $3\frac{1}{4}$, and $4\frac{1}{4}$ hours. The eclipses of Jupiter's satellites have an interesting reference to the subject of the velocity of light, which was first estimated by means of observations on these occultations by the Danish astronomer Roemer (q.v.).

JUPITER AMMON. See AMMON, *ante*.

JURE DIVINO, a phrase denoting by divine right, and used in reference to the authority of civil government or of the Christian ministry, or other office or power. Those who hold the *jure divino* view of the ministry, claim that bishops are by divine right the head of the church, and invested with its government; that they are the successors of the apostles, and, as such, inherit apostolic authority; that through them alone as the medium, the Holy Spirit is transmitted to the church. Those prelatists who oppose the *jure divino* view, while they regard the episcopal form of government as in accordance with the will of God and preferable to all others, yet find no reason for

this exclusive claim, and believe that non-episcopal ministrations, though irregular, are yet valid. They rest the claims for the ministry not on an unbroken succession, but on the basis of the divinely sanctioned institution of a Christian church, for which a ministry is needed and therefore appointed. The question as to the divine right of kings and civil magistrates has not now its ancient importance. It seems usual to concede theoretically the divine authority of a government actually existing, but to demand that, in the long run of events, it shall authenticate its sacred origin and right by justice; and a persistent failure in this regard is held to indicate its lapse from divine authority, whereupon it is conceived there is in the people a divine right to establish a government which shall be just.

JURIEU, PIERRE, 1637-1713; b. France; the son of a Protestant minister in Blois, and the successor of his father in that office, is chiefly remembered as a bitter and rancorous controversialist. His zeal, and the self-assertion which marked the expression of his views, led him into wordy battles with theologians so prominent as Bayle, Basnage, Grotius, and Bossuet, which were conducted with the greatest acrimony on all sides. He was a voluminous writer, but his published works are now esteemed as little more than curiosities of the period in which he lived. Besides his controversial writings he was the author of *A Treatise on Devotion*; *Defense of the Morality of the Reformed Church*; and *A History of the Doctrines and Worship of the Jews*. He possessed great learning, and filled the positions of professor of theology and the Hebrew language at Sedan, and that of professor of theology at Rotterdam, where he died.

JURISDICTION (*ante*) is divided into original, that possessed by a tribunal over causes which come primarily before it; appellate, upon causes appealed from a lower court; exclusive, possessed by one tribunal only; concurrent, by several tribunals over the same cause; civil, over civil causes; criminal, over criminal causes; assistant, by a court of equity to assist a court of law, etc. A court enforces its jurisdiction by acting upon the person or property of parties within the limits to which its jurisdiction is confined. See **CONFLICT OF LAWS**.

JURISPRUDENCE (*ante*) is a part of practical philosophy, co-ordinate with ethics, politics, political economy, etc. The term is used in two senses: first, as a body of positive law, regulating the relations of individuals and communities, and enforced by tribunals; which may be called practical jurisprudence. This includes all law, local, national, and international, and the methods and procedure of the tribunals which enforce the law. In its second, but more scientific sense, jurisprudence, which in this connection may be called theoretic or speculative jurisprudence, is an inquiry into the cause of law, an investigation of the principles which have influenced communities, in all times, in the enactment of law. This theoretical jurisprudence is usually defined as the science of law: but it is a science which is far from exact, and in which, till recently, our knowledge had made but little progress since antiquity. The Institutes define it as "the knowledge of things human and divine, and the science of the just and the unjust." Part of this definition was borrowed from the Stoics. The second clause of it, which makes justice the basis and principle of law, was accepted as a competent definition through the middle ages by the continental writers upon the civil law; as also in England, where, though the common law had been growing up, the law-writers were men familiar with the civil and canon law. Grotius returns to the same theory in his division of jurisprudence into divine and human; his human law (*jus humanum*) he subdivides into voluntary law and necessary law. Adam Smith made some contributions to the study of jurisprudence, and Jeremy Bentham and Austin rendered valuable service in the classification of legal rights and remedies. The principle which they sought to establish as the basis of law was "the greatest good of the greatest number." A theory deemed more promising by some has been put forward by sir Henry Maine, who has treated the subject in the historical method. From the date we possess in regard to early institutions, he concludes that law is a matter of growth, the result of the needs of the community in which it originated. There may be truth in each of these theories; and probably difficulty would be found in compacting the whole truth into any single brief theory.

JURISPRUDENCE, MEDICAL, the application of medical science to legal cases. Its practice dates to a very early period, particularly among the Jews, Greeks, and Romans, the Greek Hippocrates being the highest authority among the latter. It embraces a far greater circle of knowledge and more extended research in almost all directions than any other branch of human knowledge. The medical expert should not only be well grounded in what is strictly termed medical science, but he should have a fair knowledge of chemistry, to be able to appreciate the bearing of the work of the chemical expert upon the case, and he is called upon to decide many questions of mechanics and other branches of physics. A fair understanding of the principles of criminal law must also be considered proper adjuncts to his strictly medical knowledge. On account of the great extent of the subject, a few names only will be mentioned of the most distinguished promoters of legal medicine. As a science it is of comparatively modern date, having made little systematic progress until several centuries after the completion of the Justinian code, or until some knowledge of human physiology had become general in the medical profession. The code of Charles V. ordered that in all doubtful cases of

suspected infanticide, homicide, and other cases of death by violence, there should be reference to physicians. Ambroise Paré (1517-90) published a treatise upon tardy births, and Fortunatus Fidelis published in 1602 all that was then known in regard to medicine in all its branches. About 20 years afterwards Paulus Bacchias began the publication of his *Medico-Legal Questions*, which were completed about 1650. At this date medical jurisprudence may first be considered as meriting the name of a science. In 1609 Henry IV. of France ordered by a patent the appointment of two surgeons, in every town of sufficient importance, to make examinations in medico-legal cases. The application of the hydrostatic test of Galen (2d c.) had already been revived by Harvey, and was afterwards discussed by Bartholin, Schreyer, Bohn, and others. In 1722 Valentine published his celebrated *Medico-Legal Pandects*, and Albertini between 1725 and 1747 published his great work, entitled *System of Medical Jurisprudence*, which was followed by Tischmeyer's *Institutes of Legal or Forensic Medicine*, which was used by Haller as the basis of his celebrated lectures. Passing over several names of importance, we come to that of Antoine Louis (1723-92), who greatly advanced the science by dissertations and opinions given in the courts, afterwards collected under the title *Causes Célèbres*. In the latter part of the 18th c. Fodéré published his celebrated work on legal medicine and public hygiene, an exhaustive treatise upon the science; and about the same time Dr. Parr published in England his *Elements of Medical Jurisprudence*, which was, however, little more than a compilation from continental authorities. In 1813 Fodéré published a revised edition of his original work, and about the same time Orfila published his great work on general toxicology, the most erudite and useful which had yet appeared, followed by his *Leçons de Médecine Légale*. Then followed the works of Devergie, Capuron, Esquirol, and Marc, and the establishment of the *Annales d'Hygiène publique et de Médecine Légale* in 1829, which to this time has been the repository of the most celebrated medico-legal cases. In Germany contemporary labors of great merit were also performed. The names of more recent authors would fill much space. For the trial of legal cases involving the investigation of medical questions there is required a degree of skill and learning on the part of the lawyer as well as of the judge, and of intelligence on the part of the jury, not demanded in ordinary civil or criminal cases. Every medical expert has witnessed the mismanagement and loss of numbers of cases through want of comprehension on the part, frequently of lawyers, and sometimes of judges and juries. If the lawyer have the knowledge of his particular case well settled in his mind by a course of careful examination and consultation with his medical counsel, and his case be a good one, he will generally be able to make it clear to both judge and jury; and alas! if the case be a bad one, he will be likely to carry it if the opposing counsel be unable to comprehend it. Upon a consideration of the innumerable accidents often involving injuries of an occult nature and occurring under an endless variety of circumstances, and of the various kinds of homicides by all kinds of weapons and by poison; of injuries from violent assaults not resulting in death; and of the variety of cases of mental alienation, it is obvious that the sphere of investigation of the medico-legal expert is vast, and that it will often require the joint labors of several persons. In cases of homicide a question as to whether a certain instrument found near the scene of the tragedy is capable of making the wound found upon the body is extremely likely to arise. Or it may be disputed whether the wound was the cause of death, it having, perhaps, been made after the death, which had resulted from poisoning or drowning or suffocation. Many circumstances, if carefully observed, may shift the weight of evidence from one side to another, and the greatest caution is required in guiding the search to a sound conclusion. In cases of suspected infanticide there is often required the profoundest knowledge of physiology and pathology. A witness may testify to having heard a cry, or to having observed certain signs of life; but it may be within the power of a physician to expose the falsity of such testimony by showing the physical impossibility of its being true, on well-demonstrated physiological principles. A proper examination of the lungs, made with due circumspection, precluding the possibility of tampering or of mistake, is competent to decide the question in regard to respiration, but the examination may be performed so carelessly as to vitiate the evidence of the expert. There are often circumstances under which post-mortem examinations are made which require the most extended observation and experimental knowledge. After a body has been buried a few days, a few weeks, or a few months, certain changes, termed post-mortem, take place, which have been mistakenly ascribed to injuries produced before burial. The utmost care in examination is often required in order that the truth shall be maintained. The medical jurist or expert is often called upon for an opinion in regard to the probable ultimate result of an injury, such, for instance, as has followed a concussion in a railroad car, or a fall of a building. The claimant of damages is producing all the evidence of severe and permanent injury that can possibly be displayed, with how much sincerity it behooves the defense in the suit for damages to show. The medical examiners on both sides must be men of the keenest perception and of practical and theoretical knowledge, or injustice will be likely to follow, to the unfair advantage of one or the other of the parties.

Charitable institutions are sometimes investigated upon charges of starvation, cruelty, or neglect. Several, or perhaps all, of the children are found in a state of extreme anæmia, and the evidence is very strong that they have been starved. A plea, however, may be

put in that from hereditary causes, and previous bad living, their constitutions have been so affected that their present bad condition is the result of this, and not of want of food in the institution. Moreover, an examination of the premises reveals a bad sanitary condition. The ventilation may be found faulty and not remediable by the party accused, or its faults may not have been understood. The soil-pipes may have been defective, and currents of foul air have defiled the healthy currents of life. Prolonged investigation and unbiased judgment is often required for the decision of such cases. Questions concerning the legitimacy of offspring often arise which are so evenly balanced by the learning and research which is brought into the legal arena by the medical experts that it is sometimes scarcely possible for an unprejudiced person to come to a conclusion; but this only shows how great is the importance of precise knowledge. Certain cases of legal medicine which come within the province of professed alienists, or those who make a special study of mental disease, are more or less of an empirical character, and for that reason often require great experience on the part of the expert to enable him to pronounce a well-founded opinion. This part of medical jurisprudence may be regarded as in its infancy, involving, as it does, cases of temporary mental aberration, of the diagnosis of the various kinds of insanity, and the subject of trance, or somnambulism. The medical expert is often required to be an adept in microscopy, as well as a good chemist, in order to be able to make thorough examinations of various kinds of stains which sometimes form the principal subjects of his investigations. The condition of blood stains, brought forward as evidence of guilt, may be such as to lead to the detection of fraud, and of the fastening of the evidence of guilt upon a party who had hitherto escaped suspicion, or against whom there was no evidence. The blood of certain classes of animals can be certainly distinguished from that of others. How far the distinction can be made it is unnecessary here to say; but the blood of birds is so different from that of man and other mammals that its detection is one of the easy problems of microscopy. Blood which has collected in cavities from traumatic extravasation, and that which is consequent upon post-mortem change, under certain circumstances is often the cause of much discussion. The condition of the heart and of the lungs under the various circumstances in which death by suffocation may take place, often presents problems to the medical jurist requiring the greatest circumspection and analytical examination. Authorities may sometimes be found to conflict with each other, or by a variation in the statement of facts may be made to seem to do so, and therefore the most original and well-educated professional attainments are often required to enable judge or jury to reach an intelligent conclusion. The differential diagnosis of the various modes of death, the evidence of which may have been left upon the body; the evidence afforded by the post-mortem condition of various organs, as the brain, the kidneys, the liver, the lungs, the spleen, the heart, the stomach, and the intestinal canal; of the eyes, of the nails, and of the surface of the body, must be matters familiar to the medical expert or witness. The chemist, as a legal expert in cases of poisoning, must be familiar with the various tests and methods of examining poisons; but the physician who may be called in the case should have as thorough a knowledge as possible of the therapeutic and toxic effects of different poisons upon the body, and particularly of the post-mortem appearances which they produce. The failure of the chemist may be supplied by the physician, or, if there be reason to suspect error in the analysis, scientific pathology may come to the aid of justice.

Dead persons found beneath the surface of water often present difficult problems for the medical expert. Was the death caused by drowning? What evidence is offered by the condition of the lungs or the stomach? Do they contain water; and if the evidence be conclusive that they were drowned, was the case one of homicide or of suicide? Is there any wound upon the body which would have caused death had drowning formed no part of the cause? It is possible that a homicide may have been committed with a knife or a pistol or other deadly weapon, and if death had taken place before the body was thrown into the water the evidences of drowning would have been absent. Was death produced by strangulation, and, if so, what other circumstances are there capable of connecting some person with the crime? An intelligent professional examination of the case will often lead to the detection of the criminal when all the more common modes of search will be in vain. Poison may be found in the stomach of the person supposed to be drowned, and evidence may be furnished tending to show that the poison had been administered with either a homicidal or a suicidal intent. Whichever way this evidence tends, may be strengthened or weakened, or overthrown by the extent to which the poison has penetrated to the various organs of the body, taken in connection with all the circumstances. A very brief sketch of an actual case will serve to further illustrate the value of the science of medical jurisprudence. A woman was found dead in her bed. A coroner's jury found that her throat was cut almost from ear to ear, severing the principal blood-vessels and the windpipe. An open razor was found lying under her right arm. No extensive examination was made; the case appeared to be one of suicide, no doubt seemed to be raised, a verdict was rendered accordingly, and the body was buried. Several months after suspicions were entertained by certain parties against the husband. The body was exhumed, and another coroner's jury returned a verdict of homicide, charging him with the act. He was arrested and brought to trial. The medical counsel for the prosecution contended that it was a case of suffoca-

tion and subsequent throat-cutting. Contradictory evidence in regard to the amount of blood which had flowed from the wound was given at the trial. The theory of suffocation required that there should be but little flow of blood, and several witnesses testified that the loss of blood was insignificant. On the other side witnesses testified to the loss of considerable quantities of arterial blood. It was contended on one side that the wound was such in extent and direction that it could have been done only by a homicide, taken in connection with the rather delicate physical condition of the wife. On the contrary, the defense contended that the extent and direction of the cut furnished evidence of suicide, and, moreover, conclusive evidence against homicide, taken in connection with other circumstances, such as the relations of the bed to the room. It was placed with one side against the wall, and it was contended that it would have been impossible for a homicide to make the incision in the neck unless standing at that side of the bed. This presupposed too much forethought and deliberation on the part of the husband. It was contended by the prosecution that the condition of the lungs, found at the second post-mortem inspection, indicated suffocation, or partial suffocation, previous to the cutting of the throat; but the examination of one of the lungs found in the body at the third post-mortem by experts employed by the defense indicated, as was contended by them, that there had been no engorgement or passive congestion, but rather a want of natural quantity of blood at the time of death. The accused was acquitted. If the case had not been defended in the most resolute manner, and the greatest circumstance practiced, it is probable that a contrary verdict would have been rendered. See HOMICIDAL MANIA; INFANTICIDE; INSANITY; LUNACY; and MURDER.

JURY (**JURY TRIAL**, *ante*). An impartial jury is insured by the practice of the right of challenging, and by the method of securing a jury invariably by lot, the choice being additionally guarded by the necessity for each juror to swear to his freedom from any preconceived opinion as to the case on trial, and that he is in possession of no information regarding it, of a nature to influence his decision. Juries are divided into common, grand, special, petit, and struck. A common jury is so entitled to signify that it is drawn in the usual manner. A grand jury has for its duty the examination of evidence against a suspected person with a view to discover if this be sufficient foundation on which to frame an indictment. A petit jury passes finally on all cases that come before it. A special jury and a struck jury are obtained by the parties striking from the panel such a number as shall leave the number required by law. Juries are in all cases to determine from the evidence the facts in dispute in the causes that are brought before them. In the matter of law they are supposed to follow the instructions of the court, but frequently a mixed question of law and fact is raised which must be submitted to and passed upon by a jury. Courts of special session, police magistrates, and justices of the peace are qualified to decide causes without the intervention of a jury. The right of trial by jury is guaranteed by the constitution in all criminal cases except upon impeachment, and in all civil cases where the amount in dispute exceeds the sum of 20 dollars. Jurors, in this country, are commonly selected by the sheriff or other court-officer from among the persons possessing the statutory qualifications.

JUS GENTIUM (*ante*). the law of nations; distinguished as *jus gentium privatum*, and *jus gentium publicum*; the former taking cognizance of difference between the laws of different nations as to the same subjects; and the latter of the public relations of different nations with each other. For fuller treatment of this subject, see INTERNATIONAL LAW.

JUSSIÉU, LAURENT PIERRE DE, b. France, 1792; nephew of Antoine; was a writer of educational books and works of fiction, whose writings were popular and passed through many editions; and for one of which, *Œuvres Posthumes de Simon de Nantua*, he received the Monthyon prize. From 1839-42 he was a member of the chamber of deputies.

JUSTE, THEODORE, b. Brussels, 1818; a writer of considerable note. He is secretary to the board of education in Belgium, and has done much to promote liberal views upon the subject of instruction. His principal publications are: *Histoire Elementaire et populaire de la Belgique*; *Histoire de la revolution Belge de 1790*; *Précis de l'histoire der moyen age*; *Les Pays Bas sous Philippe*; *Charles Quint et Margaret d'Autreche*; *Les Pays Bas au XVIeme Siècle*; *La Soulovement de la Hollande en 1813, et la fondation du royaume des Pays Bas*; and *Notes historiques et biographiques*.

JUSTICE OF THE PEACE (*ante*). Although the institution of justices of the peace is derived from England, the method employed for their creation differs in the United States from that adopted in the former country, and also differs in different states. In some instances they are appointed by the executive, in others elected by the people. Their powers and duties also vary in the different states, but in most they have jurisdiction in minor cases, either civil or criminal. The extent and nature of their powers are usually defined by statute. The distinctive value of this class of magistrates is found in their power to prevent breaches of the peace, and to examine persons charged with the commission of crime or misdemeanor and hold to bail to answer in the upper court, or in default of bail to commit them to jail. In this latter particular their functions are somewhat analogous to those of a grand jury.

JUSTIN MARTYR. See JUSTINUS, *ante*.

JUVENILE OFFENDERS (*ante*), the name given to the class of vagrant children, abounding in cities and large towns, whose offenses against the peace and in infringement of the law, taken in connection with their youth, are not grave enough to entitle them to be denominated criminals within the meaning of the law. While there can be but little doubt as to the existence of this class under the older forms of civilization, there would not appear to have been any marked effort toward the suppression of the evil until late in the 17th century. The German wars and those of Napoleon, in their enormous production of the condition of orphanage, under circumstances calculated to carry those unfortunates who experienced it into vagabondage and consequent temptation, appear to have first concentrated the ideas of social economists on the subject. Accordingly we find, in the establishment founded at Halle by Herman Fromcke in 1695, the first recorded institution distinctly reformatory for children. This was, in fact, the "ragged school" of the kind established at the beginning of the 18th c. by John Pounds, the cobbler, in England. These individual efforts not only inculcated in the public mind the idea in pursuance of which they were originated, but speedily gave rise to organized effort in the same direction. About 1817 was established the London philanthropic society, which included in its purpose and practice the reformation of juvenile offenders. This organization opened the first English house of refuge for children, which may be considered the prototype of similar institutions in America. The next such establishment to which special importance is given in the history of the subject was founded by Dr. John Henry Wichern, in 1833, at a short distance from Hamburg, in Germany, and was called the *Ranhe Haus*. In all these establishments the reformatory feature had been maintained, associated with education, and with mechanical labor, as in the trades. Contemporary with the early movements in that direction in England were the organized efforts which were made in America, among which that of the society for the reformation of juvenile delinquents in New York, 1823, was the first. This society originated in a movement among the society of Friends, which was made as early as 1818. So important had the subject become in the minds of leading American publicists of the day that Edward Livingston, in his celebrated code of Louisiana, developed his views with regard to it in impressive language. Out of the New York society grew, by slow stages, the magnificent institution of Randall's island. In Boston a reform school was established in 1826, and one in Philadelphia two years later. The next step in advance was the combination of agricultural pursuits with the reform element, and out of this grew the modern "farm school," as it exists in Massachusetts and other states at the present day. The first farm school was established in Boston about 1837, and 10 years later the first state reform school was organized at Westborough, Mass. It has become the conclusion reached by experience that schools founded and managed under government control are, on the whole, more economically and systematically conducted than those directed by charitable organizations or individuals. In 1837 was founded near the city of Tours, in France, the agricultural colony of Mettray, due to the labors of M. de Metz, who had carefully investigated the reform school systems of Germany and America, and who thereafter devoted his life to the object which had come to possess so much interest for civilized communities. The Mettray school, still flourishing, is an actual village, where live and work a multitude of town children of the lower stratum, in various stages of reform, and all progressive in their lives. The Mettray system, which was really a combination of special features in those of Germany and America, now became the model, and in 1855 was established, in close likeness to it, the industrial school for girls at Lancaster, Mass., which was soon followed at Lancaster, O., by the foundation of a similar school for boys. No account of reformatory institutions of the character of those which we are discussing would be comprehensive without some reference to the Five Points mission and the children's aid society of New York, the former the scene of the labors of rev. Mr. Pease and his fellow-workers; the latter, which was founded in 1853 by rev. Charles L. Brace, an enterprise devoted to the removal of poor children from the temptations of the city, and their establishment in country homes. Both these institutions have faithfully fulfilled the intent of their founders, and have done much to ameliorate the condition of those whom they have taken under their charge. See CHILDREN'S AID SOCIETY. The number of reform schools in 1875 was: in the United States, 40; in Great Britain, 65; in Germany, 400; in France, 50; and in Italy, 33.

JUVENTAS, the goddess of youth in Roman mythology, whose worship dates back to a very early period, a structure dedicated to her having been erected on the capitol at Rome before the building of the temple of Jupiter in the 6th c. B.C. In 191 B.C. a temple was consecrated to Juventas in the Circus Maximus. Here was kept a register of the names of those liable to military duty.

JUXON, WILLIAM, D.D., 1582-1663; b. Chichester, Eng.; educated at St. John's college, Oxford; vicar of St. Giles's, Oxford, in 1609, and rector of Somerton in 1614. In 1621 he became president of St. John's college, and vice-chancellor in 1626. In 1628 he was made dean of Worcester; in 1633 bishop of Hereford and of London; in 1635 lord high-treasurer. In the civil war he adhered to Charles I., losing his ecclesiastical revenues and a large part of his temporal estate. He attended the king at his trial and

execution, was deprived of his bishopric after the death of Charles, and imprisoned for refusing to reveal what the king had intrusted to him. After the restoration he was made archbishop of Canterbury.

JYNTAEH, a district of British India beyond the Brahmaputra, in the presidency of Bengal, between 25° and 26° n. lat. and 92° e. long. The district is mountainous and abounds in iron and coal. Capital, Jynteah.

K

KABBALAH. See CABALA, *ante*.

KABUL. See CABUL, *ante*.

KA'DIAKS, KONIAGAS, or KOLOSHES, the first two being the native, and the last the Russian designation of an aboriginal race occupying the northern shore of Alaska. Extending a distance of more than 1500 m. across the peninsula, this family, in its various tribal bands, is also to be found scattered over from 100 to 150 m. of the interior. Altogether, there are said to be 14 tribes, the chief in importance, and who give the general name to the rest, being inhabitants of the island of Kadiak. The others are Malemutes, Kaviaks, Sitkas, Chnagmutes, Agulmutes, Tongas, Awks, Sundonus, Takos, etc.

KADMONITES, from a Hebrew word meaning "eastern," is recorded in biblical literature as the name of a Canaanite tribe which, in the time of Abraham, occupied the country in the n.e. of Palestine, immediately under Mt. Hermon. This is the accepted definition of the term, which may, however, have had a more general significance, to wit, "the children of the east," or those living beyond the Euphrates. In this sense the word would bear a meaning similar to that of the Saracens of ancient, or the Bedouins of recent, times, used to designate various tribes from the same district.

KAF. See CAF.

KAFFA, or KAFA, a kingdom in e. Africa, s. of Abyssinia, on an elevated tableland, 5,000 ft. above the sea. It is mountainous, with wide valleys, and is drained by numerous water-courses, which unite to form the Goshop, or Gojeb, a large river that rises farther south. Kaffa lies between the lake-region of the head-waters of the Nile and the mountains of the Moon, lat 7° n., long. 36° 30' east. The country is fertile and in some parts well cultivated, the coffee-plant being indigenous, and, as is believed, having derived its name from that of this country. There is a considerable trade in cotton and cotton cloth, and slaves. The natives are of the same family as the Abyssinians, and speak one of the Hamitic group of languages. Capital, Bonga.

KA'GA, a province on the w. coast of Japan, between parallels 36 and 37 of n. lat., the former seat of the Maëda family of daimios, and one of the richest provinces in the empire. What renders the name a household word in Europe and America is the manufacture of splendid gold and silver inlaid bronzes, and the red and gold pottery produced at Terai, Yamashiro, and Kutani (nine valleys). The characteristic decoration in gold and rouge of Kaga-ware is a development of the school of the Eraku artists of Kioto. The ware requires three bakings. Kanazawa in Kaga is a large city of 70,000 souls, and Hakusan (white mountain) rises on the s.e. border. Nearly all modern Kaga-ware is decorated in Tokio.

KAGOSHIMA, or KAGOSIMA, a t. of Kiushiu, one of the Japanese islands, capital of the feudal territory of prince Satsuma; pop. 200,000. This prince was the sufferer in 1863 of the punishment allotted for the murder of Mr. H. L. Richardson, a Hong-Kong merchant, who was killed on the highway between Yedo and Yokohama by a party headed by the younger brother of Satsuma. For this offense the British bombarded Kagoshima, Aug. 13, 1863, and obtained an indemnity of £25,000.

KAHAN, or PROBOSCIS MONKEY. See NASALIS, *ante*.

KAH'LENBERG, the name of a hill on the Danube river in Austria, a short distance from Vienna. It is memorable from having been the scene of the arrival of Sobieski to the rescue of Vienna, when that city was besieged by the Turks in 1683. It is 1100 ft. above the river, and its summit is made a place of resort by the Viennese, where various amusements are conducted.

KAIAN'ANS, the second of the historic, or sixth including the legendary or prehistoric, dynasties of Persia. The twelfth and last monarch of the previous dynasty, Afrásáb II., had been conquered by Rustam, who placed upon the throne Kai-Kubáb, a descendant of Minúchihr, and thus founded the Kainian dynasty, so named on account of the prefix *Kai* (mighty) attached to the names of the kings, beginning with Kai-Kubad and followed by Kai-Káuš (Darius the Mede), Kai-Khusrau (Cyrus), Luhrásp, Gashtásp (in whose reign Zoroaster introduced the fire-worship); Bahman, or Ardashir Dirázdast; Dárá I.; Dárá II. (or Darius Codomanus of the Greeks). This dynasty existed 660-334 B.C., ending with the battle of Arbela, in which the last king, Darius, was overthrown by Alexander.

KAI'ETEUR FALL, a noble waterfall in British Guiana, which is formed by the waters of the Potaro river plunging from the basin of that stream into the valley of the Essequibo below, a sheer descent of 741 ft., and a sloping cataract thereafter of 88 feet. The breadth of this fall at its beginning, on the edge of the declivity, is 369 ft., and its depth at the same place 15 ft. in the dry season.

KAIRA, a large t. in Hindustan in the British collectorate of the same name, within the presidency of Bombay, near the confluence of the two small rivers, Watruk and Seree. It is in lat. $22^{\circ} 45'$, long. $72^{\circ} 41'$, and 265 m. from the city of Bombay. It is surrounded by a wall with bastions. The streets are narrow and irregular, but the houses are high and well built, with sloping tiled roofs, and the gables and verandahs ornamented with carved woodwork. The district was ceded to the East India company by the Guicowar and has an area of 1869 sq.m., with a pop. of 580,631.

KAISER, the German title of emperor. It was derived from that of Cæsar, permitted by Diocletian to be used by the governing prince of Dalmatia, Croatia, and the line of the Danube, who was heir-presumptive to the imperial throne. The term was employed by the German emperors of the middle ages, and later by the emperors of Austria. In 1871 it was assumed by William I., of Prussia, on his being crowned emperor of Germany.

KAISERSWERTH, a t. in Prussia, 6 m. from Düsseldorf; pop. 2,223. It is situated in the province of the Rhine and on the river Rhine; and is chiefly important for the house of deaconesses established by Theodor Fliedner (q.v.) in 1836.

KALAFAT, a walled t. of Roumania, in the s.w. part of Wallachia; pop. 2,500. It is on the left bank of the Danube, which here forms the Bulgarian boundary, and is directly opposite Widin, and 155 m. from Bucharest. It is very strongly fortified, and has frequently been an important strategic point in the Turkish wars. The Russians lost here 10,000 men in an engagement with the Turks in 1829; and in 1854 severe engagements took place in the same vicinity. In April, 1877, war was declared between Russia and Turkey, and Kalafat was occupied by Cossacks. Early in May the Roumanians held Kalafat, and the Turks shelled the town from the fortress of Widin, thus beginning the war between Turkey and Roumania. By June 3 the lines from Galatz to Kalafat were held by 240,000 Russians and 60,000 Roumanians.

KALAKAU'A, DAVID, King of the Hawaiians; b. Honolulu, Nov. 16, 1836; descended from Keawe, an ancient king of the islands; received an English education with prince Lunaililo and fifteen other hereditary chiefs in the royal school at Honolulu. In 1860 he visited California. On the death of Lunaililo, who appointed no successor, Kalakaua was elected king in 1874 by the legislature, over Emma, queen dowager and relict of Kamehameha IV. The partisans of Emma, on hearing the result, broke into the courthouse and attacked the legislature which had elected her rival. Assistance being asked from the English and American ships in port, the rioters were dispersed, and Kalakaua was crowned the seventh king of the Hawaiians. Two days afterwards he proclaimed his brother, prince William Pitt Seleiohoku, heir-apparent.

KALAMA, a city in Washington territory, important as the southern extremity of the Pacific division of the Northern Pacific railroad. Situated on the Columbia river, 45 m. from Portland. It is the point of connection between the railroads and the Oregon steam navigation company. It was laid out in 1871, and was incorporated a city during the same year. It contains hotels, churches, a public school, a jail, and a fire department. The neighboring country is finely timbered, and at a short distance are extensive coal measures. Kalama is the seat of the offices, warehouses, and manufacturing establishments of the Northern Pacific railroad.

KALAMA'TA, or **CALAMATA**, a sea-port of Greece, capital of Messenia, near the head of the gulf of Koron; pop. 6,327. It has considerable trade. The exports are figs, oil, and silk. It is the seat of the bishop of Messenia. It is supposed to be the site of Phere, prominent in the time of the Trojan war. In the period of the crusades it was the most important town of Peloponnesus, was annexed to Venice, but in the 18th c. came into possession of the Turks.

KALAMAZOO', a co. in s. Michigan, organized 1830; has a soil of great agricultural value. The Kalamazoo river flows through the county near its center, and the country is dotted with bur-oak plains or openings; pop. in '70, 32,054; in '80, 34,342; area, 576 sq. miles. The soil is composed of a brown loam, with a strong admixture of clay; this is also found where the prairies border the Kalamazoo river. These prairies are covered with wild flowers of many varieties. Much attention is given to the raising of live-stock. All products abound that are found in the middle states. From 40 to 80 bushels of corn to the acre are produced, and the average of wheat is placed at 25 bushels. Ledges of sandstone occur in the southern portion; also fine timber growing on the bottom-lands by the Kalamazoo and a number of smaller streams. Lines of railway cross the county in every direction. Among the industries are the manufacture of furniture, pumps, carriages, musical instruments, and agricultural implements. There are mills run by steam and water power, foundries, and machine shops. Co. seat, Kalamazoo.

KALAMAZOO' (*ante*), a city in Michigan, capital of Kalamazoo co., on the river of the same name, 143 m. from Detroit; reached by the Michigan Central and Lake Shore and Michigan Southern railroads; pop. '80, 11,937. It is a thriving place, with numerous important manufacturing establishments, lighted by gas, and supplied with water through the Holly system. Its public buildings include the state insane asylum, a female seminary, a business college, and 16 churches. It is also the seat of the Kalamazoo (Baptist) college, which in 1876 had 11 instructors, 37 students of the collegiate grade, and a library of 3,000 volumes. It ranks fourth among the towns in the state.

KALAMAZOO' RIVER, or **KEKALAMAZOO** (an Indian word signifying a boiling pot), is a river in s. Michigan. It is clear and narrow, and very rapid, and rising in the center of s. Michigan, flows westward through four counties over a bed of pebbles, limestone, or sand, emptying into lake Michigan 41 m. n. of the St. Joseph river, and 29 m. s. of Grand river. It is 200 m. long but only 90 m. in a direct line from source to mouth. At its mouth, which is an excellent harbor for vessels of 100 tons burden, it is 400 ft. in width, and from 10 to 15 ft. deep. There are four considerable towns on its banks, Marshall, Battle Creek, Kalamazoo, and Allegan; the latter, 38 m. from its mouth, is the most important; and up to this point the river is navigable at all seasons. On the banks are found the *mounds* that puzzle antiquarians. Thick forests grow along its borders, which in Allegan co. furnish excellent pine timber; in Kalamazoo and Calhoun counties it flows mostly through oak-openings. It supplies excellent mill-sites for manufacturing purposes.

KALER'GIS, **DEMETRIUS**, 1803-67; b. Candia; educated at St. Petersburg; distinguished himself in the war of Grecian independence, and was taken prisoner by the Turks. He was very active in the revolution of 1843-45, was general and adjutant of king Otho, and was for some time minister of war. In 1861 he was sent as ambassador to Paris.

KALGAN, or **CHANG KIAKAU**, a populous Chinese city, 125 m. from Peking in a north-westerly direction, on the Sangho river, and on the line of the great wall. It comprises both a Tartar and a Chinese quarter, and is strongly fortified. Occupying a position on the high road to Kiachta, in Siberia, it is the seat of a trade which formerly amounted to \$8,000,000 per annum, but which has declined since 1860, owing to the extension of trade privileges to the entire frontier.

KALISCH, **DAVID**, 1820-72, a German farce and song writer of ability, and founder of the *Kladderadatsch*, a humorous and satirical paper, published in Berlin, and now more than 30 years old (1880). His plays are very popular in Germany, and a collection of his songs has been published separately under the title *Berliner Leierkasten*.

KALISPELS, or **PENDS D'OREILLES**, a tribe of Indians inhabiting portions of British America, Idaho, Washington territory, and Montana. They appear to have been peculiarly the subject of the characteristic treatment afforded the Indians by the American government, in being forced to submit to breaches of treaty stipulations, and to exasperating changes of habitat under U. S. executive direction. Formerly a wretched race of creatures, illy-fed and half-clad, their condition was essentially improved through the influence of the missions established among them about 1840 by father De Smét. Always peaceable, though brave and aggressive when molested, they became industrious, and cultivated their lands intelligently and with success. But the obligations which were entered into by the U. S. government in the treaty of 1855 were never honestly fulfilled, and the various bands were from time to time removed from their reservations, where they had cultivated lands and raised large numbers of cattle, horses, and hogs, and were driven to less eligible districts, and forced to begin life anew. In Montana there are said to be about 1000 members of this tribe; in Washington territory 300 or 400; and in Idaho 700. The tribe receives its name from the valley of Kalispel, e. of the Cascade mountains, where they have some time resided.

KALISZ, a Russian government, or district, in Poland, bordering on Prussia; 4,200 sq. m.; pop. '67, 601,029. Capital, Kalisz.

KALKASKA, a co. in s. Michigan, which embraces the head-waters of the Manistee river, the natural outlet to lake Michigan for the pine-timber section; 576 sq. m.; pop. '70, 424. It is one of the five counties that constitute the Grand Traverse region. It is covered with a dense growth of hard-wood timber, and the soil is productive to a remarkable degree. Its forests, furnishing materials for building purposes, offer strong inducements to the settler. The streams abound in brook trout. Co. seat, Kalkaska.

KALM, **PETER**, 1715-79; b. in Sweden; educated at the universities of Åbo and Upsala; was a botanist of distinction and reputation. He was a friend of Linnæus, who recommended him to the Swedish government, which, in 1748, dispatched him to North America for the purpose of making investigations in natural history. He remained abroad during three years, and on his return to Sweden published an account of his travels, which was translated into English and published in London, 1772. He became professor of botany, at Åbo, was a member of the Swedish academy of sciences, and author of a number of scientific works. The genus *kalma*, a native North American evergreen, was named in honor of prof Kalm.

KALSOMINE, or **CALCIMINE**, a composition of zinc-white and glue sizing mixed with water, in which, by adding coloring matter, any color desired may be produced. The process of kalsomining is very difficult, even for skilled painters. It requires great nicety in the preparation of the surface, care in compounding the mixture, and skill in applying it. For ceilings, mix $\frac{1}{2}$ lb. of glue with 15 lbs. zinc; for walls, 1 lb. of glue with 15 lbs. of zinc. Paris white is sometimes used as a substitute for kalsomine.

KAMBA'LIA, or **SERATA**, also called Serryah, a t. and port in Kattywar, w. India, on the gulf of Cutch, considered one of the most available and safest harbors of that coast.

KAMBALU'. See **CAMBA'LUC**.

KAMEE'LA, or **KAMALA**, a violently purgative medicine, said to be a specific against tape-worm, prepared from a plant of the order *euphorbiaceæ*, the *rotlera tinctoria*. It grows wild in Abyssinia, Australia, eastern China, southern Arabia, and India. This remedy has long been employed by the British soldiers in Hindustan in cases of *tania*, and with great success.

KAMEHA'MEHA I., called Nui (the great), 1753-1819; the first king of the Hawaiian islands. On the death of his uncle, Kalanio Ku, king of the island Hawaii in 1781, he became head-chief of the western part. In self-defense he waged war, first with the chiefs of his own island, and then with those of the other islands, which resulted in bringing the whole group under his control, and he became king in 1809. He was a man remarkable for mental energy, physical strength, and a noble carriage, but mild, frank, and generous. He built forts and mounted guns upon them. He had soldiers armed with muskets, and drilled after the fashion of Europe. He created a navy, the keel of the first ship having been laid for him by Vancouver in 1792, and before his death he had 20 ships, some of them copper-bottomed. He appreciated the character of Vancouver, whose frequent visits exerted a good influence upon him. Under his reign some of the chiefs became intelligent, conversed well in English, and assumed many of the habits of civilized life. He encouraged agriculture, commerce, and the mechanic arts. He partially abolished the taboo system and human sacrifices. His reign was remarkable for the prevalence of peace, security, and order. He died only a few months before a Christian mission embarked at Boston for the islands. He left two sons and one daughter, his eldest son, Liholiho, by his wife Keopuolani, succeeding him.

KAMEHA'MEHA II., called **LIHOLIHO IOLANI**, second king of the Hawaiian islands, 1797-1825. Kaahumanu, the favorite wife of his father, was his premier, and shared with him the government until her death. He completely abolished taboo and idolatry, and the missionaries, on reaching the islands, received the astounding intelligence that the gods had been burned and the whole system of idolatry destroyed. The king permitted the missionaries who arrived in 1820 to remain at Kailua, and assigned a house belonging to the late king for their temporary residence. In Nov., 1823, he embarked for England and the United States, accompanied by his wife Kamamalu and two chiefs, leaving the government in the hands of Kalahinoku and Kaahumanu, and naming his brother Kauikeaouli as his successor if he should not return. They were well received by the British government, but the king and queen both died without having seen George IV. or his ministers of state. Their remains were taken to the islands in an English frigate. Though of intemperate habits, Liholiho declared his belief in Christianity, attended public worship, and recommended the same to his people. He was a diligent student, decided, and enterprising in character. He was succeeded by his brother Kauikeaouli as Kamehameha III.

KAMEHAMEHA III., called **KAUIKEAOULI**, third king of the Hawaiian islands, 1814-1854. He did not fully assume the royal power until 1833, the kingdom being under the regency of Kaahumanu, the queen dowager of Kamehameha I., and Kalaimoku, and on the death of Kaahumanu, in 1832, Kenau, the daughter of Kamehameha I., became regent, and afterwards premier of Kamehameha III. In his youth Kamehameha was dissipated, but through the influence of the missionaries under whose instruction he was placed when nine years of age, he became a wise and useful man. Though not always temperate he had excellent points of character, and was beloved by his people. Previous to 1838 the government was a despotism, but in 1840 he gave his people a written constitution, recognizing the three grand divisions of king, legislature, and judges; and under his reign the Christian religion became the established national religion of the Hawaiian islands. Great Britain, France, and the United States acknowledged the independence of his government, and treaties were made with these and other powers. Education, agriculture, and commerce in his reign were prosperous. He was greatly harassed by the efforts of foreign seamen, led by European and American officers, to violate the laws, and of English and French officers to introduce French Roman Catholic priests into the islands. But he defeated their plans. He was called Kamehameha the good.

KAMEHAMEHA IV., called **ALEXANDER LIHOLIHO**, fourth king of the Hawaiian islands, 1834-1863; b. Honolulu; the nephew and adopted son of Kamehameha III., who appointed him his heir and successor under the name of Alexander Liholiho. With his brother Lot Kamehameha he visited, in 1850, England, France, and the United States, and in 1854, soon after his return, he ascended the throne. In 1856 he married

Emma, the daughter of a native chief and an English woman, and the adopted daughter of Dr. Rooke, an English physician. Excessive grief for the loss of his infant son shortened his days. He was a man of talents, better educated than his predecessors, of prepossessing manners, and loved by the people. He was much interested in the progress of the Reformed Catholic mission, and by his personal solicitation of subscriptions was instrumental in the establishment in 1860 of the Queen's hospital in Honolulu. He translated the Book of Common Prayer into Hawaiian.

KAMEHAMEHA V., called Lot, fifth king of the Hawaiian islands, brother of Kamehameha IV., and called Lot Kamehameha, 1830-72. He was dissipated in his youth, but reformed before he became king. Like his brother, he was educated and accomplished, and, having acquired experience as minister of the interior and commander of the forces, he was well qualified to administer the government. He refused to take the oath to the constitution of Kamehameha III., considering it too democratic, and proclaimed one more absolute, which, after violent opposition, was accepted. He was a man of strong will and great courage, but superstitious. Dying unmarried, the direct line of the Kamehamehas ended with him. He named no successor, and prince Lunalilo, a chief of a high family, was appointed king.

KA'MEKE, GEORG ARNOLD CARL VON, b. Prussia; entered the army in 1834, and in 1850 was raised to the rank of captain. He was sent to Vienna in 1856 as attaché to the Prussian embassy, and remained there two years. In 1858 he was appointed chief of the engineering department, with the rank of lieutenant-col. He was placed in command of a regiment of infantry in 1861, and rose to the position of major-general and chief of staff, leading the 2d army corps in the war with Austria in 1866. His services were rewarded by a decoration, and in 1867 he was promoted to the office of inspector-general and in the following year to lieutenant-general. On Aug. 6, 1870, during the Franco-Prussian war, he made the direct attack on Saarbrücken in command of the 4th division (part of the 7th army corps), leading the assault in person. By him, also, the movement was undertaken that resulted in the capture of the heights of Spichenen; he was summoned from the frontier to Paris, Jan., 1871, and given charge of the engineering operations of the siege. After peace was declared he returned to his former position of inspector-general, and was made minister of war in 1874.

KAMENZ. See CAMENZ.

KAMI, or HAPPY SPIRITS, are in Japanese mythology certain spirits or divinities who founded the first terrestrial dynasty. The Japanese believe that the spirits of human beings survive the body, and receive reward or punishment according to the conduct of this life. If a man's life has been distinguished for piety, patriotism, or good works, they deify him after death as a *Kami*, and thus the number of these deities is indefinite. Some of them preside over the elements and powers of nature. The worship of these demigods or Kami is called *Kami-no-mitsi*, or *the way of the Kami*. They have chapels in all parts of the empire called *mias*, which are always built in picturesque localities, generally among groves of trees, usually upon a hill, natural or artificial, with a massive stone stairway leading to the top. These *mias* were originally commemorative chapels, erected in honor of Japanese heroes. The prince of the province where the hero was born, or had performed his deeds, had the charge of keeping the chapel in repair; there was no priest to officiate, and no privileged class interposed between the worshiper and the being worshipped.

KAMOURASKA, a co. in Quebec, Dominion of Canada, on the St. Lawrence river, whence it extends to the state of Maine, the range of mountains which form the source of the river De Loup and the Androscoggin being a part of its eastern boundary; 1017 sq. m.; pop. '71, 21,254, chiefly of French descent. Its surface is much broken. It is traversed by the St. Francis, Kamourasca, and Walloostook rivers, and by a division of the Grand Trunk railway. The principal products are oats, rye, barley, wheat, and potatoes.

KAMPEN, NIKOLAAS GODFRIED VAN, 1776-1839; b. in Holland; obtained his first literary impressions in a bookstore in which he worked as an apprentice. He studied languages and taught German, and at the age of 30 was professor of the Dutch language, literature and history in the university of Leyden. He also edited the *Leyden Gazette*, and wrote voluminously on many subjects. In 1831 he published *Geschiedenis der Nederlanden buiten Europa*.

KÄMPFER, or KAEMPFER, ENGELBRECHT, 1651-1716; b. Germany; was a medical student at Königsberg, and visited Persia as secretary to the Swedish ambassador. Having received an appointment as surgeon to the Dutch East India company, in its naval service, he accompanied the fleet, to which he was appointed, to the East Indies and Japan. He returned to Europe in 1693, and devoted himself to the preparation of his voluminous notes for a comprehensive history and description of the empire of Japan and the kingdom of Siam. It is a curious fact in literary history that this important work was never published in Dutch, and that from the first edition, published in London in 1727, were made the existing French and German translations.

KAMPTZ, KARL ALBERT CHRISTOPH HEINRICH VON, 1769-1849; b. Germany; studied law at Göttingen, and rose to a high judicial position. For 12 years he was

minister of justice of the kingdom of Prussia. He incurred the animosity of the students and of the more liberal Germans engaged in the political movements of the time, and his important work, the *Codex der Gendarmarie*, was publicly burned by the students of Wartburg.

KANABEC, a co. in e. Minnesota; 540 sq.m.; pop. '75, 311. The largest portion of the surface is covered with forests of sugar-maple, pine, etc. The soil produces wheat, oats, and grass. It is drained by the Grindstone and Knife rivers. Valuation of real and personal estate, \$571,282. Capital, Brunswick.

KANAGA'WA (*ante*). See YOKOHAMA.

KANA'WHA, a co. in West Virginia, formed in 1789, of two counties, Greenbrier and Montgomery, pop. in '80, 32,466—2,869 colored; area, 1150 sq.m.; co. seat, Charleston or Kanawha Court-house, which is the capital of the state, 308 m. w. of Richmond. The uplands, and the banks of the Kanawha river (Kanawha, in the Indian dialect signifying *the river of the woods*), are covered with a dense growth of timber. Fine sandstone is found in extensive ledges, and inexhaustible beds of bituminous coal. Salt is an important article of export; and the water is obtained by boring at a depth of from 300 to 500 ft. below the bed of the Kanawha river. The brine invariably rises to a level with the river. The Elk, Coal, and Pocatalico rivers water wide sections of the county, and the Ohio and Chesapeake railroad crosses it. Tobacco is one of the chief staples; other products are: corn, wool, oats, pork, and sweet potatoes. The manufactures include saddlery and harness, woolen goods, cooperage, flour, and lumber.

KANDAHAR'. See CANDAHAR.

KANDIYO'HI, a co. a little w. of the centre of Minnesota, about 850 sq.m.; pop. '75, 8,033. It has an undulating surface, diversified by forests of oak, elm, etc., and with many small lakes. The soil is of an excellent quality, producing wheat, oats, grass, etc. The St. Paul and Pacific railroad passes through. Valuation of real and personal property, \$1,015,554.

KANDY, or CANDY, an important t. in Ceylon (q.v.), 7° 20' n. lat., 80° 50' e. long.; pop. 3,000. It was formerly the capital of the king of Kandy's dominions, and the palace of the kings, though now much dilapidated, covers a considerable space, and was formerly a building of great magnificence. The ruined temple and tombs of the kings are objects of much interest to travelers. Kandy is 65 m. from the town of Colombo, and is situated in the midst of a number of steep hills, whose lofty summits are covered with jungle and very unhealthful. The houses are of mud and thatched, excepting those of the chiefs, which are tiled and whitewashed. The principal street is about 2 m. long.

KANE, a co. in n.e. Illinois; 540 sq.m.; pop. '80, 44,956. It has an undulating surface and a fertile soil. A considerable portion of the county is prairie. It is intersected by the Chicago and North-western, the Chicago, Burlington and Quincy, and the Chicago and Iowa railroads. Its staple productions are wheat, corn, oats, hay, flax, butter, and pork. Valuation of real and personal estate, \$32,890,589. It contains the cities of Aurora and Elgin. Capital, Geneva.

KANE, a co. in s. Utah, bordering upon Arizona; intersected by the Colorado and partly drained by the Rio San Juan; pop. '80, 3,085. A considerable portion of its surface is mountainous. The soil produces wheat, corn, and pasturage for sheep. Valuation of real and personal property, \$269,105. Capital, Toquerville.

KANE, ELISHA KENT (*ante*). See POLAR EXPEDITIONS.

KANGAROO ISLAND, in south Australia, at the mouth of the gulf of St. Vincent, in lat. 36° s., long. 137° e. Its length from e. to w. is 95 m., and its width generally about 25 m.; 1970 sq. miles. The surface is extensively covered with bushwood, with a few trees. It has numerous salt lakes. It received its name from the number of kangaroos found there by its discoverer, capt. Flinders.

KANGHIOA, or KANG-WA, Japanese KOKWA, a well-wooded, rocky, and mountainous island off the western coast of Corea, between n. lat. 37° and 38°, and long. e. from Greenwich, 126° and 127°. It is about 20 m. long, and 9 or 10 wide, of an elongated oval shape, having an area of 160 sq. miles. The soil is very fertile, producing rice, tobacco, sorghum, maize, barley, beans, cabbage, chestnuts, etc. This island is scoured on its eastern side by the cold, rapid, and turbulent current of the Han river, the largest in Corea, whose sources are in the high mountains along the e. coast. The city of Kanghoa, with a pop. of about 12,000, in the eastern center of the island, has from ancient times been the refuge of the royal family during foreign invasion or civil war. During the Mongol invasion it was the national capital. Chinese pirates have greatly troubled the inhabitants for centuries. In Oct., 1866, the French naval expedition, under admiral Roze, made rendezvous off the island, and attacked Kanghoa city in force, in revenge for the murder of nine French Jesuit missionaries in Seoul a few months before. The fortifications, consisting mainly of a crenellated wall 15 ft. high, defended by arrows, jingols, and matchlocks, were stormed by scaling parties, the gates broken in with axes, and the place captured after some slaughter. About 80 bronze and iron cannon of small caliber, 6,000 matchlocks, the official archives of the city, large food-supplies, \$22,000

worth of silver, and a valuable library of books were captured; besides large quantities of miscellaneous war material. Flushed by success, a party of 160 marines attempted to capture a fortified monastery a few miles s. of the city, which had been garrisoned by a regiment of native tiger-hunters. Upon the first assault nearly one-fourth of their number were disabled, and a retreat was ordered. The next morning, after one week's stay in Corea, the admiral suddenly gave orders to evacuate the island. The French government did not approve of the expedition, and Bellonet, the French minister who had ordered it, was recalled. The effect of this ill-planned raid was disastrous all over the east, French prestige suffered greatly, and the massacre at Tientsin followed, June 2, 1870. This frightful event was believed to have gained its first impetus from the unfortunate issue of admiral Roze's campaign in Corea. The American expedition sent in 1871 to make a treaty with Corea if possible, and inquire into the affair of the *General Sherman* (see PING YANG), arrived off Boissée (Woody) island May 30. On June 1 the *Palos* and *Monocacy*, with four steam-launches, were dispatched up the river, and while turning a rocky point were fired on by the Coreans. Only one of the Americans was hurt, and the forts were shelled and silenced at once. Eight days later an expedition of chastisement was dispatched against the forts on the Kanghoa side of the river. The force consisted of 759 men, 2 extra-armed gun-boats, and 4 steam-launches. After forty-eight hours' absence from the anchorage, eighteen of which were spent on land, during which five forts were attacked and captured, the Americans returned victorious, having lost three men killed and ten wounded, among the former lieut. McKee, who, like his father in Mexico, lost his life as he entered a fort leading his men. Fifty flags, 481 cannon, and many trophies were captured and the forts dismantled. About 400 Coreans lost their lives. The forts were on the rocky promontories jutting into the river, whose violent current made naval maneuvers extremely difficult. The whole fleet, under rear-admiral John Rodgers, with minister A. A. Low, then returned to Chifu (see report of the U. S. secretary of the navy, 1871). On Sept. 19, 1875, the Japanese gun-boat, *Unyo-kan*, while on her way to Newchang, China, stopped at Kokwa or Kang-hoa island to procure water. Her men were fired on by the Corean garrison, who evidently mistook the Japanese mariners for French or Americans. The Japanese, on the 20th, attacked the fort (Yeso), and without loss to themselves killed 24 of the garrison and took the fort. This event led to the treaty expedition sent later, under Kuroda, by which the two nations have entered into commercial relations.

KANGRAH, an extensive hill fort in the northern part of the Punjab, s.w. of the Himalaya mountains, between the Beyah and the Rauvy rivers. The fortress was taken by Mahmood of Ghizni, who carried off immense riches; retaken by the rajah of Delhi in 1043, and subsequently, after a long siege, by the emperor Akbar. At the beginning of the present century it belonged to Sansa Chand, who surrendered it to Runjeet Singh. When the English obtained possession of the Punjab the country in the vicinity of Kangrah was chosen for the cultivation of the tea-tree, and there is now an extensive plantation at the base of the Chamba range of hills.

KANKA'KEE, a co. in n.e. Illinois, on the Indiana border, and drained by the Kankakee and Iroquois rivers; nearly 600 sq.m.; pop. '70, 24,352. The land is chiefly prairie, interspersed here and there with swamps. It is mainly an agricultural county, its chief productions being wheat, corn, oats, potatoes, flax, butter, and cheese. Not less than four important railroads pass through it. Capital, Kankakee city.

KANKAKEE CITY, the capital of Kankakee co., Ill., on the river of the same name. It is 55 m. s.w. of Chicago, and on the Illinois Central at its junction with the Cincinnati, Lafayette and Chicago railroad. Pop. '80, 5,809. It contains 10 churches, the usual county buildings, 2 banks, 2 foundries, 1 flour mill, 1 woolen mill, 3 carriage factories, and 4 weekly newspapers.

KANOGE, or KANOUJ, a t. and district of Hindustan, in the province of Furruckabad. The district lies along the e. side of the Ganges, and has generally a sandy soil, but well cultivated. The town is 2 m. from the Ganges, with which it is connected by a canal. It is of great antiquity, and when taken by Mahmoud of Ghizni was one of the most wealthy and populous cities of India. It was the capital of Hindustan at the time of the Mohammedan invasion, when, in 1018, it was captured, but not permanently held by Mahmoud. There is now but one street, and there are no important buildings. The adjacent plain is covered with ruined temples and tombs, and broken images under the trees. Among the ruins are found curious remains of antiquity, such as coins inscribed with Sanskrit characters, sometimes with the image of a Hindu deity. The distance of Kanoge from Agra is 110 m.; from Lucknow, 75 m.; from Delhi, 214 m.; from Calcutta, 650 miles.

KANSAS (*ante*) was a part of the territory of Louisiana ceded by France to the United States in 1803. When Missouri, also a part of the same territory, in 1820, prayed for admission to the union as a slave state, a fierce controversy arose, the people of the north generally contending that congress ought to exercise its constitutional power to refuse the request until Missouri should agree to abolish slavery, while the people of the slave states demanded its admission on the ground of constitutional right. The controversy was finally settled by the adoption of what has since been known as "the Missouri compromise," the substance of which was that Missouri should be admitted to the

union as a slave state, but "that in all the territory ceded by France to the United States under the name of Louisiana which lies n. of lat. 36° 30' n., excepting only such part thereof as is included within the limits of the state [Missouri] contemplated by this act, slavery and involuntary servitude, otherwise than in the punishment of crime, whereof the party shall have been duly convicted, shall be and is forever prohibited." The effect of this provision was to leave Arkansas, lying wholly s. of 36° 30' n. lat., open for the introduction of slavery, and it was accordingly admitted to the union as a slave state in 1836, with but slight opposition from the free states. Iowa, being also a part of the Louisiana purchase, and lying n. of the line of 36° 30' n. lat., was admitted to the union as a free state ten years later without opposition from the slave states. The "Missouri compromise" up to this time had been treated by both sections of the country as a finality. In 1854, when it was proposed to organize the territories of Kansas and Nebraska, the supporters of slavery incorporated in the act of organization a proviso declaring that the prohibition of 1820 was "inoperative and void," thus proposing to remove the barrier to the extension of slavery which had been created by congress 34 years previously, and to the maintenance of which, during all that period, both the northern and southern portions of the union had held themselves to be "forever" bound. The plea by which it was sought to justify this act was that "the compromises of 1850," so called, which had been adopted by congress as a "final settlement" of all the differences respecting slavery which then existed, operated as a "virtual" repeal of the Missouri restriction. It was not contended that the acts constituting "the compromise of 1850" contained any specific reference to the restriction of 1820, or that in the debates preceding their passage any hint or intimation was given that they would have the effect of repealing the restriction; but it was insisted that the legislation of 1850 was in principle incompatible with that of 1820, and therefore that the latter should give way. It was the avowed purpose of the supporters of slavery to introduce the system into Kansas and Nebraska, and to bring them into the union as slave states. Here was the beginning of the later series of events which led directly to the great rebellion and its war. By the vast majority of the people of the free states the proposition to repeal the Missouri restriction was held to be perfidious, and an intense excitement ensued. Numerous remonstrances against the act were sent to congress, among them one from 3,000 northern clergymen; but in spite of all opposition the act was passed. Emigrants from Missouri rushed into Kansas in large numbers, with a fixed determination to make it a slave state. The enemies of slavery determined to defeat this plan, and a tide of emigration flowed towards the new territory from the free states. Emigrant aid societies were formed and incorporated to assist those who were disposed to enlist in the struggle to save Kansas from the blight of slavery. Attempts were made to resist by force the entrance of emigrants from the north into the territory. A secret society had been organized in Missouri for the purpose of extending slavery into Kansas by sending voters into the territory, and public meetings were held to promote the same object. One of these meetings was held at Weston, and it was declared by those who were present that they held themselves in readiness, whenever called upon by any of the citizens of Kansas, "to assist in removing any and all emigrants who go there under the auspices of the northern emigrant aid societies." On Nov. 29, 1854, an election was to be held for the choice of a territorial delegate to congress. The polls were taken possession of by armed bands from Missouri, and, of the 2,843 votes cast, 1729, it was afterwards proved, were illegal. In Mar., 1855, an attempt was made to elect a territorial legislature, and again the polls were taken possession of by armed bodies of men from Missouri, who elected pro-slavery delegates from every district, and then returned to their homes. An investigation showed that of 6,218 votes cast in this election, only 1410 were legal, and that of these 791 were given for the free state candidates. Gov. Reeder set aside the returns from six of the districts, and ordered new elections therein, which resulted in the choice of free state delegates, except in Leavenworth, where the polls were again invaded by armed Missourians. The pro-slavery party, by fraudulent means, gained a majority in the territorial legislature, which expelled all the members chosen at the second elections ordered by gov. Reeder, and gave their seats to the men elected by the armed raiders from Missouri. The same body passed an act making it a capital offense to assist slaves in escaping either to or from the territory, and felony to circulate anti-slavery publications, or to deny the right to hold slaves; also an act requiring all voters to swear to support the fugitive-slave law. The struggle between the free state and the slave state parties did not end until 1859. The latter was constantly supported by the national executive, as well as by bands of armed men from Missouri. Governors whose sympathies were with the pro-slavery party at the time of their appointment were summarily removed by the president when they were found too honorable to connive at the most palpable frauds. The free state party, knowing themselves to be a majority of the actual settlers of the territory, refused to be cheated out of their rights. They met force with force, and were so courageous and persistent that the other side was at length compelled to give way, and in 1859 a constitution prohibiting slavery was framed by a convention of delegates at Wyandotte, and ratified by the popular vote—10,421 citizens voting for it, and 5,530 against it. This settled the question, and Jan. 29, 1861, Kansas was admitted to the union with a constitution prohibiting slavery.

The surface of the state is generally undulating, with a gentle slope toward the e., where there is a succession of fertile prairies, rich valleys, and grass-covered hills. On the western line the altitude above the sea is more than 3,000 ft., while it is less than 1000 ft. near the Missouri river. The river-bottoms vary in width from one-quarter of a mile to 10 miles. Back from the bottom-lands are bluffs varying in height from 50 to 300 feet. The state is abundantly watered. On the north-eastern border the Missouri presents a water front of nearly 150 miles. The Kansas river, formed by the union of the Republican and Smoky Hill rivers, in Daviess co., flows eastward 150 m., and empties into the Missouri near Wyandotte, where the latter turns from a southerly to an eastward course. The Smoky Hill rises in Colorado, and after entering Kansas receives the Saline and the Solomon—the former about 200 and the latter 300 m. long. The Republican also rises in Colorado, flows across the n.w. corner of Kansas into Nebraska, and afterwards returns to the state, joining the Kansas as above mentioned. The Big Blue, which rises in Nebraska, and the Grasshopper are northern tributaries of the Kansas, while the Wakarusa joins it from the south. About two-thirds of the state lies s. of the Kansas and Smoky Hill rivers. The Osage rises in the e. part of the state, flows s.e. 125 m., and enters Missouri. The Neosho rises near the center of the state, flows s.e., receives the Cottonwood, and enters the Indian territory. The Verdigris, 20 m. further w., flows nearly parallel with the Neosho, and also enters the Indian territory. The Arkansas, which rises in Colorado, runs through nearly three-fourths of the length of Kansas, in a course so tortuous that its windings in the state have been reckoned at 500 miles. With its tributaries, the Walnut, the Little Arkansas, and Cow creek, it drains the larger portion of southern Kansas. No one of all these interior rivers is navigable.

Bituminous coal is found in the entire e. portion of the state, but some of the veins are thin. The coal-bearing region embraces an area of 17,000 sq. miles. Some coal of an inferior quality exists in the w. part of the state, where salt in large quantities and of the purest quality is found. Iron ore is found only in small quantities and of a character which will not repay working. Lead, alum, limestone suitable for hydraulic cement, petroleum, deposits of lime, fine building stone, and brick and other clays, are not lacking. The climate of Kansas is very pleasant, the great proportion of fair sunny days being one of its features. In winter the temperature rarely falls below zero; in summer it ranges from 80° to 100°, but the nights are cool and the air is dry and pure. The winter winds, to which the prairies offer no obstruction, are sometimes very severe; but on the whole the climatic conditions are highly favorable to consumptives and those suffering from asthma and other bronchial troubles.

The fossils in the w. part of the state are of great geologic interest. They embrace dicotyledonous leaves of many species, some of which are new to science: cinnamon, such as now grows only in the torrid zone; large sharks and other fish; saurians and amphibians of great size; and marine shells, reptiles, and fishes of species previously unknown.

The soil of the state is admirably adapted to agriculture, being rich in the mineral constituents which promote vegetation. The bottom-lands are especially fertile, the soil being from 2 to 10 ft. deep. On the uplands it is from 1 ft. to 3 ft. in depth. In the e. half of the state it is a black, sandy loam, intermixed with vegetable mold. In the w. part it is of a lighter color, but deeper than that in the east. The e. part of the state is well wooded. The trees most abundant are oak, elm, black walnut, hickory, sycamore, cotton-wood, box-elder, honey-locust, willow, white ash and blackberry. In the most sparsely-settled portions of the state the buffalo, elk, deer, antelope, and prairie-dog may still be found, while the prairie-hen, wild turkey, wild goose, and other game birds are plentiful.

The prosperity of Kansas since its admission to the Union is hardly paralleled by that of any other state. In 1855 it had a population of 8,501; in 1860, 107,206; in 1870, 364,399; in 1875, of 531,156; in 1880, of 995,335. The increase since 1875 appears to have been at the rate of nearly or quite 100,000 per annum. It is mainly an agricultural state, though its manufacturing interests and mineral resources have been rapidly developed. The assessed value of property in 1875 was \$137,480,000. The total number of acres of land is 33,599,600, of which 5,595,305 were then under cultivation, and 28,004,295 were uncultivated. In 1878 the cultivated portion of the state had increased to 6,583,728 acres. The true valuation of property for 1870 was \$188,892,014; that for 1880 \$260,000,000. The value of agricultural productions for 1878 is reported as follows: Field products, \$49,914,434; increase in total value of farm animals, \$6,401,871; products of live stock, \$10,415,339; products of market gardens, \$247,510; apiarian products, \$55,141; horticultural products, \$2,642,770—total valuation of farm products, \$69,677,067. The acreage of winter wheat in 1879 was estimated at 1,297,525, that of spring wheat at 412,139—making a total of 1,709,664 acres. The area in corn was 2,925,070 acres; in oats, 573,928 acres; in potatoes, 65,000 acres; in flax, 69,383 acres; in cultivated grasses, 139,976 acres; in prairie, meadow, and pasture, 484,019 acres; total area in all farm crops, 7,757,130 acres. The apple crop of 1877 was valued at \$1,445,128; the peach crop at \$539,056; cherries, \$138,239; wine from grapes, \$11,201; small fruits, \$707,060. The number of farm dwellings erected in 1879 was 15,952, valued at nearly \$3,000,000. The latest statistics of manufactures are those of 1870, when the number of establishments was 1,477, employing capital amounting to \$4,319,

060, and paying in wages during the year, \$2,377,511; value of products, \$11,775,833. The chief industries were: carpentering and building, flouring and grist mills, foundries, lumber mills, saddlery and harness, and woolen mills. A state commissioner was engaged in 1878 in stocking the rivers with fish, chiefly salmon and shad. The number of national banks in 1873 was 26, with a capital of \$1,975,000, and a circulation of \$1,537,496. In 1874 there were in the state 34 fire and marine and 20 life insurance companies.

The public institutions are: the asylum for the insane at Ossawatimie, the asylum for the deaf and dumb at Olathe, the school for the blind at Wyandotte, the state university at Leavenworth, the state agricultural college at Manhattan, and the state penitentiary at Leavenworth. The constitution requires the legislature to establish "a uniform system of common schools, and schools of a higher grade, embracing normal, preparatory, collegiate, and university departments." In the year ending July 31, 1879, the whole number of school districts was 5,575; persons of school age (between 5 and 21 years), males, 160,542; females, 150,768; total, 311,310; number of pupils enrolled, males, 107,095; females, 101,314; total, 208,409; average daily attendance, males, 62,120; females, 61,876—total, 123,996; number of teachers, males, 3,128; females, 5,579—total, 6,707. The total of receipts for school purposes was \$1,878,563; of expenses, \$1,590,794. The permanent school fund on June 30, 1879, amounted to \$1,601,631. The amount of school property in 1878 was \$4,527,227.

There being in the interior of the state no navigable rivers, the railroads are the chief means of transportation and travel. There were in the state in 1879, 2,500 m. of railroad in operation, the assessed value of which was \$15,525,033. The law prohibits the corporations from charging over 6 cents per mile for transporting passengers. The principal roads, with their number of miles within the state, are: The Atchison, Topeka, and Santa Fé, 469; Kansas Pacific, 476; Leavenworth, Lawrence, and Galveston, 144; central branch of the Union Pacific, 100; Missouri, Kansas, and Texas, 156; Missouri River, Fort Scott, and Gulf, 159; St. Joseph and Denver City, 138.

Topeka is the state capital. The capitol building is a large and handsome structure. The governor is elected by the people for 2 years and receives an annual salary of \$3,000. The lieutenant-governor, secretary of state, auditor, treasurer, and superintendent of public instruction are elected in the same way, for the same term, each receiving an annual salary of \$2,000. The attorney-general, elected in the same way and for the same term, is paid \$1,500 per annum. The legislature is composed of a senate and house of representatives, and the number of their members respectively changes as new counties are organized. The apportionment of 1876 fixed the number of senators at 40, and of representatives at 123; the former being elected for 2 years, the latter for 1 year. Their compensation is fixed by the constitution at \$3 per day for actual service and 15 cents per mile for travel to and from the capital. The sessions commence annually on the 2d Tuesday of January. The annual election is held on the Tuesday succeeding the first Monday in November. The supreme court, consisting of a chief-justice and 2 associate justices, is elected by the people for the term of 6 years; the district courts, of one judge each, are elected by the people for 4 years; the probate court of each county, consisting of one judge, is elected for 2 years. Married women may sue and be sued, carry on in their own names any trade or business, and have full control of their earnings. The property of a wife at marriage is not merged with that of her husband, but remains her own. Neither husband nor wife is allowed to bequeath more than half of his or her estate away from the other without written consent. Divorces are allowed for abandonment for one year, adultery, impotency, extreme cruelty, drunkenness, gross neglect of duty, and imprisonment in the penitentiary subsequent to marriage. The total bonded debt of the state in 1878 was \$1,181,975. The electoral votes of Kansas for president and vice-president of the United States have been cast as follows: 1864, 3 for Lincoln and Johnson; 1868, 3 for Grant and Colfax; 1872, 5 for Grant and Wilson; 1876, 5 for Hayes and Wheeler; 1880, 5 for Garfield and Arthur.

KANSAS, a tribe of Indians of the Dakotah family, and a branch of the Osages. On Marquette's map of 1673 they are placed on the Missouri river, beyond the Missouris and the Osages. The Jesuits had a mission among them in 1728. In 1815 they were on the Kansas river at the mouth of the Saline, near the center of the state which has adopted their name, the Sioux having driven them from their home on the right bank of the Missouri. They numbered but 1500 at this time, and the government made a treaty of peace with them. By another treaty, made June 8, 1825, they ceded all their lands in Missouri and elsewhere, retaining a reservation 30 m. wide on the Kansas river. Thirty-six sections of land were to be sold, and the money thus obtained was to be invested as a school fund for their benefit; and the government agreed to give them an annuity of \$3,500 for 20 years, and provide them with animals and implements of agriculture. Ten years later the Methodists established a mission among them, but failed of success. They could not be induced to cultivate the soil, and were constantly falling into trouble with the neighboring tribes. In 1846 the government entered into another treaty with them, by which a reservation 20 m. square on the head waters of the Neosho, was assigned to them. After removing to their new home they fell into bad habits and began to plunder the trains on the Santa Fé road. When Kansas began to be settled

their reservation was invaded by the "squatters," who forced many of them to leave. In 1854 they entered into treaties granting a right of way through their territory to certain railroads. They took no part in the Kansas troubles, but furnished 80 or 90 soldiers, who fought well for the United States in the war against the rebellion. In 1862 the Friends established a mission among them, but met with little success. In 1867 and 1869 new treaties were made with them, and finally, in 1872, congress directed their reservation on the Neosho and their trust lands to be sold, half the proceeds to be invested for their benefit, and half to be spent in providing new homes for them in the Indian territory. They also receive 5 per cent annually on \$200,000 under the treaty of 1846, and the interest on \$27,485 in stocks held for them by the government. In 1872 their number had dwindled to 593.

KANSAS CITY, in the state of Missouri, on the s. bank of the Missouri river, at the confluence of the Kansas river, and near the boundary line between the states of Missouri and Kansas, which in fact runs n. and s. through the western suburb of the city. It is the county seat of Jackson co.; pop. '70, 32,260; '80, 55,813. The site of the city is alluded to by Fremont in 1843 as Chouteau's landing. The city now covers numerous knobby bluffs, which rise to the height of 120 ft. above the river. The abruptness of these elevations from the river necessitates deep cuts and fills for the streets, which are laid out to pierce through hill and over gulch, regardless of natural topography. The city, therefore, presents a rough appearance on a general view; but its business buildings are substantial, and many residences on the hills are elegant and tastefully adapted to the hilly sites. The growth of Kansas City began with that remarkable migration into the territory of Kansas urged by New England antislavery societies from 1850 to 1860. Before that time southerners with their slaves had begun to settle the territory. Kansas City was one of the gateways of this conflicting migration. After the great conflict was over its position proved to be most advantageous for railway concentrations from the e. and the west. It became one of the great points for supplying west-bound emigrants to Kansas, Texas, Colorado, New Mexico, and the overland trade with California before the Union Pacific railroad was completed, as well as the main market for the sale of the cattle, buffalo skins, and hides of all the plains w. and s.w. Where ox and mule trains and driven cattle made the beginnings of its growth, fifteen different railways now radiate to all parts of the country, making Kansas City the heart of a great railway system. The bottom land at the intersection of the Kansas with the Missouri makes a convenient meeting place for all the railways. An iron bridge across the Missouri 1387 ft. long, supported on 7 stone piers, built by a railway association, furnishes a river-crossing for most of these roads. Two other fine bridges also span the Kansas and invite the growth of the city into the neighbor state. Four lines of street railways are operated, connecting with Westport in Missouri and Wyandotte in Kansas. There are six grain elevators, with storage for 1,495,000 bushels.

The city is especially the mart of trade in cattle and other live stock. Its shipments for 1879 were: cattle, 211,361 head; hogs, 589,794 head; sheep, 61,157 head; horses, 15,826 head. The stock yards are extensive. A cattle stock exchange building, containing 24 offices, two banks, restaurants and shops, is at the yards. Beef and pork packing is a business of great magnitude and engages a large European capital. Of late years bodies of bituminous coal have been opened in the border counties s. of the city, and this fuel is distributed by rail and water over a vast country from this point. A board of trade was organized in 1872, which has been influential in giving direction to the business spirit of the city. The post-office receipts for the year 1879 were \$98,948, realizing a profit to the department of \$69,425; postal remittances received same year, \$504,555; postal orders issued, \$208,029. The free school system embraces 8 primary schools and 1 high school. Besides, there are Roman Catholic schools and seminary, a medical school, and commercial college. The city has 28 churches; 6 daily papers (3 morning and 3 evening), 2 tri-weekly, 6 weekly, and 1 bi-monthly; an opera house and 2 theaters; a city hospital, an orphan asylum, a work-house, and a woman's home. The city has water-works by a combination of the reservoir, stand-pipe, and Holly systems, from which it derives an annual revenue of about \$100,000 (1879). It is lighted with gas, has a paid fire department, and an efficient police. The bonded debt, July 1, 1880, was \$1,353,702.

KANSAS, or KAW, RIVER (*ante*), formed by the Smoky Hill fork and the So omon river, which unite in Salina co., near the center of the state of Kansas. It flows eastward, and empties into the Missouri near Kansas City. The Big Blue from the north enters it at Manhattan. It is 300 m. long, and has upon its banks Lawrence, Topeka, and Junction City, and the Kansas Pacific railroad runs by its side from its mouth to its source. It is not navigable to any important extent.

KANTEMIR. See CANTEMIR.

KAPP, FRIEDRICH, b. in Germany, and devoted his earlier years to the study of law; but, having espoused the cause of those who were seeking to establish republican principles on the continent of Europe, he became involved in the revolutionary movement of 1848, and found it necessary to leave the country. He accordingly went to New York, where he joined the republican party in politics, and while he practiced his profession,

also interested himself greatly in public affairs. He was chosen one of the republican presidential electors for the important election of 1860, and in that capacity cast his vote for Abraham Lincoln. He was a commissioner of emigration in the city of New York. In 1870 he went to Germany, where he was elected to the reichstag. He has written a number of works on slavery, and on the relations of Germany and the United States, and lives of baron de Kalb and gen. Steuben.

KAPPEL, a village in the canton of Zurich, Switzerland; pop. 1256; noted chiefly as the place where Zwingli was killed in 1531, in a battle between Protestants and Roman Catholics.

KARA GEORGE. See CZERNY GEORG, *ante*.

KARAHISSAR'. See AFIUM—KARA-HISSAR, *ante*.

KARA'JITCH, VUK STEFANOVITCH, 1787-1864; b. Serbia; educated at Karlovitz at the school for dissenters from the Greek church. Being of a delicate constitution, instead of joining the insurgents in their struggle against the Turkish authorities which began in 1804, he acted as secretary to their chiefs, who were ignorant of the art of penmanship. He also served at Belgrade, as secretary of the senate and of Kara-George or black George, prince of Serbia, while he held the power. In 1813, the Serbians being abandoned by Russia, he was compelled, after the treaty of Bucharest establishing the power of the sultan, to fly to Austria, and encouraged by Kopitar, the Slavonic scholar, then holding a position in the imperial library, he undertook the labor of collecting the national ballads, with many of which he had been familiar as a boy. He traveled through Bosnia and Montenegro, seeking among 5,000,000 of Serbian-speaking people for their ancient songs, translations of some of them having been loudly praised by Goethe. Some are of recent origin, celebrating the exploits of the first 10 years of the present century. He was supplied from all sources, even by ferocious Mohammedans of western Turkey, and by Serbian women, who contributed their familiar love-songs. In 1814 he published *Narodne Srpske pjesme*, (Vienna, 4 vols.), selections of which have been translated into English and German, ranking very high among European ballads. He also published a Serb grammar translated into German by Jacob Grimm, and in 1818 a Serbo-German dictionary, basing his system of orthography on the Russian alphabet, and *Danica*, a literary almanac. In 1826-34, *Serb Popular Proverbs*, and *Serb Popular Tales*. In 1847, a Serbian translation of the New Testament. In 1849, *Korchejich; or, Casket for the Serbian Language and History*, and other works of value in the study of the race. He received the honorary degree of PH.D. from the university of Jena, and a pension from the Russian government. His Serbian countrymen have no family names, and the distinctive surname of Karajitch is the name of the district where his family resided; his appellation of Vuk Stefanovitch signifying Wolf, the son of Stephen.

KARAJITCH, VUK STEFANOVITCH, b. 1787; and educated in Carlowitz, in Austro-Hungary, on the Danube. He served in the Servian war of independence, and after it failed fled (1813) to Austria, where he engaged in literary pursuits. He was the author of a Servian grammar and dictionary, and made a collection of the popular songs of Servia, which was translated into German and English. He also published a volume of Servian proverbs and popular tales.

KARAK, a small rocky island in the Persian gulf in lat. 29° 14' n., long. 50° 20' e.; 15 m. in circumference, and 40 m. n.w. of Bushire; pop. about 3,000. A village on the n. side has 1000 inhabitants, who support themselves by fishing and raising fruits. Vessels find safe anchorage at Karak during the violent gales from the n.w. which prevail in this sea. It has a fertile soil and good water, but is without timber. The Dutch built a fort here in the 18th c., but soon abandoned the island. The English occupied it, 1839-41, and in 1856 the English expedition against Persia landed on the s.e. coast.

KARAKO'RUM, or MUSTAG MOUNTAINS, called also TSUNG LING, a range of central Asia, separating the province of Cashmere from eastern Toorkistan, and crossing Thibet. It commences in long. 74° 30' e., and extends to about 92° east. It is, in fact, the western part of the Kuenlun mountains, and the name is given also to a pass 18,000 ft. high by which the Karakorum range is crossed from Thibet into Chinese Toorkistan. Depsang peak on this range is 28,278 ft. high, and others are nearly as high. The average height is 25,000 feet. The highest water-shed of Asia is near the Karakorum pass. This range, with which the Kuenlun is often said to be connected, is in fact a distinct branch of the Himalayas. The city of Karakorum was the ancient capital of Mongolia, and for a time of Jenghis Khan. Its site has not been discovered.

KARENS, or KARRANS (wild men), so called because, through oppressions and atrocities of the people among whom they dwelt, they have been driven to occupy jungles and almost inaccessible mountains, shunning other races except as drawn for trade to the towns. They are found in Burmah, Siam, and the southern part of China. They are supposed to have anciently migrated from farther north, and their features and language suggest a Caucasian origin. They are found sometimes as nomads, burning the underbrush in a forest, building three or four huts in the ashes, staying till the resources of the spot are exhausted, then moving elsewhere. Sometimes they are found as husbandmen, raising rice, vegetables, and fruit, and trading in honey, poultry, pigs, rattan, mats, and tusks of the elephant and rhinoceros. They are harmless and indus-

trious, and superior in morals to many more civilized races. The common dress is a sleeveless cotton frock, but they are fond of ornaments. Their houses are of bamboo, raised on strong posts, 6 or 7 ft. from the ground. As a race they are without form of religion or regular priesthood, and till recently without a written language; but through a set of poetic legends they have transmitted from father to son ideas of an overruling God, of the brotherhood of man, and of future reward and punishment. In these songs, which are singularly pure and elevating, are accounts of the creation, of a deluge, of a time when language became confused in consequence of disbelief in God, of the betrayal of a son and daughter of God by Satan in the form of a dragon, which are remarkably like the teachings of the Jewish scriptures. In these songs are also prophetic anticipations of future enlightenment through white strangers, who should come to them by water. When the missionaries sent to Burmah met with these people, and began to tell them of Christ, they were gladly received, and their labors have been attended with success scarcely rivaled in the history of missions. The converts were relentlessly persecuted by the Burmese, but, since southern Burmah fell into the hands of the English, the Karens have been able to build churches and establish schools. There are over 400 churches and about 20,000 members.

KARKOR, a city e. of the Jordan, in the desert. Its exact location has not been identified, though supposed to have been not far from Succoth and Penuel. Here Zebah and Zalmemna, the Midianitish kings, were routed by Gideon (Judges, viii. 10).

KARLI. See CARLEE.

KARLSBAD. See CARLSBAD, *ante*.

KARLSBURG. See CARLSBURG, *ante*.

KARLSKRONA. See CARLSKRONA, *ante*.

KARLSRUHE. See CARLSRUHE, *ante*.

KARLSTAD. See CARLSTAD, *ante*.

KARLSTADT. See CARLSTADT, *ante*.

KARNES, a co. in s. Texas; about 850 sq.m.; pop. '70, 1705. The surface for the most part is nearly level. The soil is adapted to pasturage, and furnishes support to large herds of cattle, which are the chief article of export. Valuation of real and personal estate, \$678,513. Capital, Helena.

KAROO' BOKADAM', a harmless fresh-water snake of India, 4 ft. long.

KARSPINSKI', FRANCISZEK, 1745-1823; b. Poland; having received his early education under the direction of the Jesuit fathers, lived both in Vienna and Galicia as agent for landed estates. In 1783 he appeared at the court of Stanislaus Augustus, king of Poland, as secretary of prince Adam Czartoryski, in Warsaw. Being averse to the life, either of courts or of a tutor in noble houses, in 1791 he rented two estates in Lithuania for 50 years, and remained there the rest of his life, a great benefactor to his tenants. His poems, which are national, are remarkable for their depth, simplicity, and sweetness. His writings, in 4 vols., were published by Demochowski at Warsaw in 1821; new edition, Leipsic, 1836; and contain, besides songs and idyls, a translation of the Psalms, a tragedy called *Judyta*, and several prose essays. His autobiography is in the hand-book called *Znicz* at Wilna, 1834.

KARSTEN, HERMANN KARL, b. Prussia, 1817; after completing his studies in Berlin, devoting himself chiefly to botany, undertook a journey through the northern portion of South America, which occupied him, with a brief interval of rest, during 13 years. He made a profound study of the flora of the United States of Colombia, and also of palms, and after his return to Berlin—where he was appointed professor of botany—he published *Die Vegetationsorgane der Palmen*; *Flora Columbiæ*, and *Chemismus der Pflanzencelle*.

KARSTEN, KARL JOHANN BERNHARD, 1782-1853; b. Germany; studied law at Rostock, but applied himself to medicine, and in 1801 assisted in editing Scheerer's *Universal Journal of Chemistry*. In 1803 he became referendary, and soon after assessor, in the superior mining office in Breslau. In 1806 he went to upper Silesia to take charge of mining, and to furnish the fortress with munitions. He erected the zinc works of Lidognia, in which zinc was first made from cadmia. He gave lectures in Breslau until, in 1819, he was called into the ministry of the interior of Berlin, as private, superior, mining counselor. He wrote *Hand-Book of Metallurgy*; *Elements of Metallurgy and Metallurgical Science*; *Metallurgical Travels Through a part of Bavaria and Austria*; *Sketches of German Mining*; *Philosophy of Chemistry*; *Archives of Mining and Metallurgy*, 20 vols.; and, as a continuation of this work, *Archives of Mineralogy, Geognosy, Mining, and Metallurgy*, in 25 vols.

KASAM. See KAZAN, *ante*.

KASBIN, or KAZVIN. See CASBIN, *ante*.

KASHMIR'. See CASIMERE, *ante*.

KASKAS'KIA, a t. in Randolph co., Ill., on the right bank of the Kaskaskia river. It is the oldest town in Illinois, of which it was the capital till 1818. Its founders were

Frenchmen, and most of the present inhabitants are of French descent. It has little business.

KASKASKIA INDIANS, a tribe formerly settled in Illinois, whence they were removed by the U. S. government in 1832 to the territory which is now included in Kansas, and in 1867 to a reservation in Indian territory, where the remainder of them, very few in number, still reside. There is a tribal connection between the Kaskaskias and the Peorias and other Illinois Indians. The former are rather more intelligent than is usually the case, and have taken kindly to civilization.

KASSON, JOHN A., b. Vt., 1822; graduated in 1842 at the university of Vermont; practiced law at St. Louis; in 1857 removed to Iowa; became assistant postmaster-general in 1861; elected to congress in 1862, '64, '72, and '74; and in 1877 appointed by president Hayes minister to Austria.

KATAHDIN, or **KTAADN**, the highest mountain in Maine, 5,385 ft. above the sea. It is in Piscataquis co., in a dense wilderness and difficult of access, and the view from the summit is wild and grand.

KATHAY, or **CATHAY**. See **CHINA**, *ante*.

KATIF', a fortified t. in Arabia, on the Persian gulf, lat. 26° 25' n., long. 50° east. It has a trade in pearls from the adjacent fishery.

KATKOFF', **MIKHAIL NIKIFOROVITCH**, b. in Moscow, 1820. After finishing his studies in Königsberg and Berlin, he was for several years professor in philosophy in Moscow. He relinquished this position in 1856, to devote himself to journalism, in which he has acquired an immense influence. He is a fearless opponent of the wrongs suffered by the people of Russia under their government.

KATMANDU', or **CATMANDOO**. See **KHATMANDU**, *ante*.

KATSU ÁWA, a Japanese statesman, b. about 1820. Of progressive ideas he became, after witnessing com. Perry's actions and methods in 1854, a strong adherent to the party representing "New Japan." As one of the officers in the tycoon's navy he commanded the steamer that in 1861 carried the Japanese embassy to America. In 1868, through his friendship with Saigo (see **SAIGO**), he saved Yedo from the torch. At that time the minister of the tycoon, he advised his master to resign, which the latter did. The assassination of Katsu Áwa was three times attempted by disappointed retainers of the tycoon. Retiring with his master to Shidzuoka, Katsu Áwa was recalled by the mikado, and made secretary of the navy and afterward imperial adviser. Katsu Áwa sent his son to the United States to study at the naval academy at Annapolis, from which he graduated.

KAUAI', the largest of the Hawaiian islands, in lat. 22° n., long. 159° 30' w.; 527 sq. m.; pop. '72, 4,961. Waialeale, the highest peak, near the center, rises about 6,000 feet. West of this is a table-land 3,000 ft. high, of 40 sq. miles. On the w. coast is a sand-bank formed by the wind and constantly encroaching upon the land. The valleys are numerous, and the soil in them is often 10 ft. deep. There are large tracts of arable land. The s.w. portions are dry and sterile. The largest river is the Hanalei, emptying into a harbor of the same name. The principal town is Koloa. This and Nawiliwili have good anchorage. The island gives evidence of volcanic origin. The chief product is sugar; and hides, tallow, and wool are exported. Bread-fruits, bananas, and all tropical fruits grow in abundance.

KAUFFMANN, MARIA ANGELICA, 1741-1807; b. at Coire, in Switzerland; died in Rome. A gifted woman of many accomplishments, especially distinguished as a portrait painter. She was daughter of a painter, exhibiting at the age of 12 intellect of a high order and such familiarity with literature, history, and art as to attract marked attention. Her father, fully appreciative of her talents, devoted himself to her education and took her to Italy. Bishop Neoroni of Como, hearing of the rare genius of the child, sent for her, was charmed by her intelligence and beauty, and sat to her for his portrait. It was a success, and at the age of 13 she was already overtaxed with orders. At 20, already celebrated, her father traveled with her to Florence, Parma, Rome, Bologna, Naples, and Venice. At Bologna she executed an etching entitled "The Toilet." At the age of 23 at Rome, she was the friend of Winckelman and Rafael Mengs, both of whom had a high opinion of her skill as an artist. The former sat to her for his portrait, and was enthusiastic in appreciation of her accomplishments. A few years later she was deceived into a marriage with a spurious count Horn, from whom she not long afterwards obtained a divorce. All these years she was engaged on portraits of the eminent men and women of high rank who were attracted by her fame. She accompanied lady Wentworth to England, where she was received with honor in the highest circles, where her beauty, genius, and pure character made her life an ovation. Portraits by her hand were the rage. She joined in the organization of the English royal academy, was one of its original 36 members, held a prominent place in its exhibitions, and was honored with the warm friendship of sir Joshua Reynolds. When a commission of five was appointed to decorate St. Paul's cathedral, she was associated with Reynolds, West, Bray, and Cipriani on that commission. In 1781, after the death of her father, she married signor Antonio Zucchi, a Venetian, and thenceforward

resided in Venice and Rome. At Venice she painted one of her historical pieces, "Leonardo Dying in the Arms of Francis I." At Rome she attracted the friendship of Goethe, Herder, and Klopstock; and her last years were crowned with respect and honor. The list of her works is large. Portraiture of the noted beauties of her time in Italy and England was considered her *forte*. Of the grace and high refinement of her style we have a good example in "The Vestalina," of late years widely known by photographs and miniature copies on porcelain.

KAUFMAN, a co. n.e. of the center of Texas, in the valley of Trinity river; 950 sq. m.; pop. about 7,000. It is well timbered, and has a fertile soil, producing cotton, grain, and live-stock.

KAUFMANN, CONSTANTIN PETROVITCH VON; b. about 1817, in the Baltic provinces of Russia. He won distinction first as an engineer, and afterwards served as chief of staff in the Caucasus. Later he served for a time in the war department, and aided in reorganizing the army. In 1864 he was made governor-general of the military division of Wilna, and in 1867 of the newly-formed division of Turkistan. In the latter position he won great distinction by his success in strengthening and extending Russian influence in central Asia. He waged a successful war against Bokhara, and subjugated the khaa of Khiva, the czar's most dangerous enemy in that quarter.

KAUFMANN, THEODOR; b. Uelsen, 1814; studied painting in Hamburg and Munich; and during the political troubles in Germany in 1847-49, he came to the United States. In the war of the rebellion he served in the army, and afterwards lived in Boston. His chief pictures are: "On to Liberty;" "Gen. Sherman near the Watch-fire;" "A Pacific Railway Train Attacked by Indians."

KAVANAGH, JULIA, 1824-77; b. in Ireland; educated in France, but after 1844 resided in London. She was a remarkably graceful and intelligent writer of fiction, her works being devoted mainly to the illustration of home life and domestic traits. She wrote also several biographical sketches, including *French Women of Letters*; *English Women of Letters*; and *Women of Christianity Exemplary for Piety*. Among her works of fiction are *Nathalie*; *Daisy Burns*; *Adèle*; *Grace Lee*; and *Sybil's Second Love*.

KAVANAUGH, HUBBARD HINDE, D.D.; b. Ky., 1802. He joined the Kentucky Methodist Episcopal conference in 1823, and was eminently successful as an itinerant. In 1839 he was superintendent of public instruction in Kentucky, and in 1854 was ordained a bishop of the Methodist church, south.

KAVI, the ancient sacred language of Java. There are three dialects of the Javanese—the vulgar tongue, the polite dialect, and the ancient or recondite. All of these have words from the Sanskrit, Arabic, and Tehigu, brought in, not by conquest, but by religion and commerce. The largest infusion of these is of Sanskrit. In the common language of Java the proportion of Sanskrit is about 11 in 100, but in the recondite it is about 40 per cent. The introduction of Sanskrit is traced to the immigration of the Brahmans from India about 2,000 years ago, who brought with them also Hindu civilization and religion. Kavi holds the same relation to the Javanese that the Sanskrit does to the language of India. The word *kavi* signifies learned or wise, and is used because in this dialect is the Javanese literature, consisting of poems, histories, romances, etc. In the 15th c. the Kavi language, with Hinduism, was driven from the island to the small island of Bali.

KAYE, JOHN, D.D., 1783-1853; graduated at Cambridge, where he became successively master and regius professor of divinity. Was made bishop of Bristol in 1820, and 7 years later bishop of Lincoln. He made a study of the Greek and Latin fathers, and published *Writings and Opinions of Clement of Alexandria*; *Writings and Opinions of Justyn Martyr*; *The Ecclesiastical History of the Second and Third Centuries*, illustrated from the *Writings of Tertullian*; and *Government of the Church during the First Three Centuries*.

KAYE, Sir JOHN WILLIAM, 1814-76; was for several years employed in the military service of the East India company, and wrote a number of works on oriental subjects, including *History of the War in Afghanistan*; *Life and Correspondence of Lord Metcalfe*; *Life of Sir John Malcolm*; *History of the Sepoy War*, etc.

KAZINCZY, FERENCZ, 1759-1831; a Hungarian author and editor, whose writings include plays, poems, travel-sketches, and translations from the English, French, and German. He received a college education and studied law, but followed literature as a profession, and by earnest and persistent effort accomplished much towards the restoration of the Magyar language and the abolition of the use of Latin in its place. In 1794, having been concerned in a political conspiracy, he was brought to trial and sentenced to death, but obtained a commutation and was imprisoned for several years. The latter portion of his life was peacefully occupied in general literary pursuits.

KEAN, EDMUND (*ante*), made his first professional visit to the United States in 1820, and was received at first with great enthusiasm; but in the following spring, having broken an engagement in Boston on account of the smallness of the audiences attracted by his fame, he was severely censured, and not long afterwards returned to England, where worse troubles, caused by his vices, awaited him. An action was brought against

him in 1825 for criminal conversation with the wife of another man, and he was mulcted for damages in the sum of £800. In consequence of this scandal he was hissed from the stage in London and Edinburgh. In the same year he came again to the United States, but was met at first with riotous hostility wherever he attempted to act. Having made an apology for his conduct, he appeared in New York and Philadelphia, but was denied an opportunity to act in Boston and Baltimore. The Tuscarora Indians, however, elected him a chief, giving him the name of Atlantenouidet. This honor not being sufficient to retain him in this country, he returned to England in 1826, where his health and spirits were soon completely broken by his habits of intoxication, from which he never recovered. His dramatic talent was of a high order, and, if his intellect had not been beclouded by strong drink, he would no doubt have achieved an honorable and enduring fame. In spite of this drawback his acting was at times so grand as to excite the wonder and delight of his audiences.

KEAN, ELLEN (TREE), 1805-80; b. London; married to Charles John Kean in 1842. She made her first appearance upon the stage at Covent Garden theater, in London, in 1823, and soon established a high reputation both in tragedy and comedy. In 1836 she came to the United States, and here as well as in Canada met with great success. Upon the death of her husband in 1868 she retired from the stage.

KEANE, JOHN, first Lord Keane, 1781-1844; b. at Belmont, co. Waterford, Ireland. Entering the army as ensign in his 13th year, he served in the campaign in Egypt as aid-de-camp to lord Cavan. In Spain he gained the rank of maj.gen., and in 1814 was at first assigned to the command of the land forces sent to attack New Orleans, but, on being superseded by sir Edward Pakenham, he served in the expedition in a subordinate capacity and was twice wounded. In 1823 he was appointed commander-in-chief of the army of the West Indies, serving until 1830, and for a part of the time administering the civil government of Jamaica. In 1833 he was transferred to the service in India, and in 1839 succeeded in taking the fortress of Ghuznee in Afghanistan, which till then had been thought impregnable. For this he was raised to the peerage as baron Keane, receiving at the same time a pension of £2,000 from the East India company.

KEARNEY, a co. in the s. part of Nebraska, bounded on the n. by the Platte river, intersected by the Burlington and Missouri river railroad; 500 sq.m.; pop. '80, 4,072. The surface is slightly undulatory, and the soil specially adapted to pasturage. Timber is scarce. Capital, Minden.

KEARNEY, DENIS, b. Ireland, 1847; at the age of six years was employed as post boy in his native village, Oakmont, co. Cork; and when 11 years old went to sea as a cabin-boy on a voyage to New York. From this time he followed the sea until 1872, when, being in San Francisco, he obtained employment as foreman of a gang of stevedores, and soon after went into the draying business on his own account. He interested himself in local politics, and was secretary of a club. In 1877, influenced by the interference with his business of bonded draymen, he began to incite the laboring men of San Francisco to an incendiary condition of mind, and soon gained great ascendancy over them. Mass meetings were organized on the "Sand-lots," a suburb of the city, where Kearney ruled supreme, and where he soon attracted general public notice on account of the savage and uncompromising nature of his attacks upon capital, Chinese labor, and other so-called grievances. His language became noted for its blasphemous and ribald character, and this caused the associated press to give him a wider notoriety throughout the country than he would otherwise have gained. His influence rapidly increased, until his powerful following were able to pack a constitutional convention, and organize a new constitution for the great state of California which was largely in their own apparent interest, and certainly most detrimental to capital and vested interests within the state. Emboldened by his success, Kearney grew more intemperate in his language and more savage in his threats. In the summer of 1878 he visited the eastern states, accompanied by a private secretary, making something in the nature of a "progress," and delivering his excited and intemperate speeches in the leading Atlantic cities and in the west. He did not succeed in engrossing public attention or interest to any great extent, and returned to California without having made the impression which he had anticipated. Towards the end of 1879 Kearney became so offensive to the authorities of San Francisco that he was several times arrested, and early in 1880 was tried for the use of slanderous and incendiary language in public, and sentenced to six months' imprisonment in the house of correction. He had by this time fallen under the displeasure of his own adherents, who accused him of treachery, and by whom he was even threatened with personal violence. So that, on his release from prison, it was readily perceived that his influence had gone from him, and his name soon died out of public mention.

KEARNEY, or KEARNY, LAWRENCE, 1789-1868; b. N. J.; entered the U. S. navy as a midshipman in 1807, and performed important services during the war of 1812. At the close of the war he was dispatched to the gulf of Mexico and the Caribbean sea, at this time infested with pirates, whose strongholds were hidden among the West India islands and along the coast. He discovered and destroyed their haunts and captured

their vessels, and rid those waters of what was becoming a serious disturbance to commerce. In 1827 he performed a similar service for the Levant, breaking up the nests of the Greek pirates, and destroying their ships. He was promoted to be lieutenant in 1813, commander in 1825, captain in 1832, and commodore in 1866. In 1841 he was appointed to the command of the East India squadron, and succeeded in gaining certain trade concessions from the Chinese, which were afterwards made permanent by treaty stipulations.

KEARNEY, or KEARNY, PHILIP, 1815-62; b. New York, graduated at Columbia college and studied law, but accepted the appointment of lieutenant in the 1st U. S. dragoons in 1837. Being ordered to repair to France to study and report upon the French system of cavalry tactics, he entered the polytechnic school at Saumur, and afterwards volunteered to the ranks of the *chasseurs d'Afrique*, and fought with this celebrated corps in Egypt with such distinction that he was decorated with the cross of the legion of honor. From 1840 to the outbreak of the Mexican war he was on the staff of gen. Scott, with whom he served through the entire campaign in Mexico, winning a reputation for daring and determination unexcelled by that of any other American officer. For conspicuous gallantry in the fights of Contreras and Churubusco, he was breveted major; and, during a magnificent cavalry charge at one of the gates of the city of Mexico, he lost his left arm. In 1851 Kearney resigned from the army and visited Europe, where he devoted himself, however, to the study of his profession, and on the outbreak of the Italian war, in 1859, entered the French service as a volunteer aid. Being engaged at Magenta and Solferino he was once more decorated, this time by the emperor in person. He entered the war of the rebellion as a brigadier-general of volunteers in the union army, but was soon placed in command of a division in gen. Heintzelman's corps, in which position he distinguished himself at Williamsburg and during the seven days of the peninsula retreat. Gen. Kearney was made a major-general of volunteers July 4, 1862, and on Sept. 1 following was killed in the battle of Chantilly, Va. He was an efficient and trustworthy, as well as a brave and dashing officer, and his loss was mourned by the entire country.

KEARNY, STEPHEN WATTS, 1794-1848; b. N. J.; was appointed a lieutenant in the 13th U. S. infantry in 1812, and received rapid promotion for meritorious conduct. In 1846 he was brigadier-general, and commanded the army of the west, which conquered New Mexico. He was appointed governor of California in 1847, and in the following year received the brevet of major-general. He wrote a *Manual for the Exercise and Maneuvering of U. S. Dragoons*, and other works.

KEAR'SARGE, MOUNT, an elevation in Carroll co., N. H., belonging to the White mountain group; lat. 44° 6' 20" n., lon. 71° 5' 40" w.; height 3,250 feet. It was for this mountain that the vessel was named which sank the confederate cruiser *Alabama* in 1864. Another mountain, situated in Merrimack co., N. H., has sometimes been mistakenly called by the same name. The latter was formerly known as *Kyar-Sarga*, which was easily changed to Kearsarge. Its Indian name was Cowisewaschook, and it is 2,950 ft. high.

KEAYNE. Capt. ROBERT, supposed to have been b. in London in 1595. He was a merchant tailor, and, possessing wealth, aided the Plymouth colony as early as 1624. In 1635 he became one of the founders of the colony of Massachusetts Bay, settling at Boston, where in 1638 he organized the "ancient and honorable artillery company," which has been perpetuated to the present time. He represented the city in the general court, 1638-49. He was a liberal contributor to Harvard college, and a legacy left by him was the foundation of the free school, now known as the Boston Latin school. His wife was a daughter of sir John Mansfield, and he was therefore brother-in-law of rev. John Wilson, first minister of Boston. He was a man of many eccentricities, some of which found expression in his will, which is probably the longest, perhaps the oddest, ever made in this country.

KEBLAH, an Arabic word, signifying literally "the south," or "anything opposite." It is employed to designate the point of adoration, or that point of the compass towards which worshippers face when in prayer. Thus the Persian fire-worshippers turn to the east, as the place of the rising sun; the Jews face in the direction of Jerusalem, the Mohammedan to Mecca, and as the first Christians faced to the east, the communion table in some Christian sects is usually placed at the east end of religious structures. Persons are also buried with their feet to the east, because thither they "look for the day-spring and resurrection"; this custom is thought to have originated among the ancient Greeks. In free-masonry the custom of turning to the east is recognized in the ceremonial.

KEDARNATH, a famous resort of Hindu pilgrims in northern Hindustan, in the mountains of Gurwhal. The place is accessible only by steep roads, which for half the year are blocked up with snow. One of the peculiar ceremonies observed here is that of the widows shaving their heads after bathing and purifying themselves in the Ganges, which is here a narrow stream.

KEE'CHIES, the remnant of an Indian tribe, formerly resident in Texas, but since 1859 removed to the Washita river in Indian territory, after temporary subjection to the

customary disturbed relations with frontier settlers, and with the U. S. government. Analogies of language indicate that this tribe is closely allied to the Pawnees.

KEELING, or Co'cos, ISLANDS, a group comprising Horsburg, Keeling, and other smaller islands, in lat. 12° 5' s., long. 96° 53' e., in the Indian ocean. They belong to Great Britain; and a few English people inhabit them, but the chief population are Malays. The cocoa-palm flourishes here, with other tropical vegetation.

KEENE, a city of New Hampshire, and the capital of Cheshire co., which forms the s.w. corner of the state; situated upon the left bank of the Ashuelot river at the junction of the Cheshire and Ashuelot railroads; 43 m. w.s.w. from Concord, the capital of the state; pop. '80, 6,786. It is surrounded by lofty hills, and the Monadnock mountain is only 10 m. distant. The place was settled in 1735, when it was called Upper Ashuelot. It received its present name in 1753, and was incorporated as a city in 1874. The streets radiate from a public square, and many of them are lined with shade trees. It is the center of a large trade, and has some fine buildings. It has 7 churches, graded public schools, a high school, a public library, 3 national banks, and 2 weekly newspapers. There are also manufactories of carriages, woolen goods, earthenware, brick, furniture, etc., and railroad repair shops employing a large number of workmen.

KEENE, LAURA, 1820-73; b. England; a professional actress on the London boards, where she achieved some reputation in comedy and the drama, particularly in the character of "Pauline" in Bulwer's *Lady of Lyons*. She left England in 1852, and visited the United States and Australia, making her first appearance in New York, Sept. 20, 1852, and afterwards performing in San Francisco. In 1855 she established herself in New York in the management of the Varieties' theater, and at a later period directed the establishment to which she gave her own name. Here, in 1858, she produced *Our American Cousin* for the first time, with Joseph Jefferson as "Asa Trenchard," and E. A. Sothern in the small character-part of "Lord Dundreary," which he afterwards elaborated to be the feature of the piece. In 1860 Miss Keene formed a traveling company, which she continued to direct during the next ten years. Returning to New York in 1870, she continued to appear until a brief period before her death. Miss Keene was a capable and popular actress, with marked personality and certain mannerisms, which were not, however, unpleasant. She excelled in melodramatic parts.

KEFF, or EL-KEFF, a strongly fortified t. of South Africa, near the Algerian frontier; pop. 6,000. Its situation is beautiful.

KEIGHTLEY, THOMAS, 1789-1872; graduated at Trinity college, Dublin, and passed his life in study, and in the compilation of text-books in history and mythology. He wrote *Mythology of Ancient Greece and Italy*; *Outlines of History*; *History of India*, etc.

KEIM, THEODOR, D.D.; b. at Stuttgart, Württemberg, 1825; was in the university of Tübingen from 1843-48, where, under the guidance of Baur, he devoted himself to philosophy, ecclesiastical history, and biblical criticism; was tutor at Bonn in 1850, and at Tübingen from 1851-55; was ordained deacon in 1857, and archdeacon in 1859, and in 1860 became professor of theology at the university of Zurich. He is prominent among the liberal Protestant theologians of Germany, and has written several volumes upon the history of the reformation in different parts of that country. Among his works are *The Historical Christ* and *The History of Jesus of Nazareth*.

KEITH, a co. in s.w. Nebraska, adjoining Colorado, intersected by the two branches of the Platte river, and traversed by the Union Pacific railroad; 2,016 sq.m.; pop. '80, 194.

KEITH, ALEXANDER, 1791-1880; b. Keith Hall, Aberdeenshire; educated in Scotland; a minister of the established church until the disruption in 1843, when he joined the free church. His principal work, *Evidences of the Truth of the Christian Religion Derived from the Literal Fulfillments of Prophecy*, is a standard work, has passed through 37 editions, and been translated into several languages. It was followed by *The Signs of the Times*; *The Land of Israel*; *Demonstration of the Truth of the Christian Religion*. He was an enthusiastic student of prophecy. With Dr. Black and others, as a deputation from the church of Scotland, he visited Palestine to make researches respecting the condition of the Jews, and published a *Narrative of the Mission to the Jews*. This has been illustrated by his son, Dr. G. S. Keith of Edinburgh, who accompanied him in his tour.

KEITH, GEORGE, about 1640-1715; b. Aberdeen, Scotland; educated for the Presbyterian ministry at the university there. He adopted Quaker principles about 1664, and was subsequently associated with both Robert Barclay and George Fox in public discussions for the defense of the sect. In 1682 he taught a Quaker school, and in 1684 was imprisoned in Newgate for preaching without license and for refusing to take an oath. Not long after this he came to America and became surveyor-general of East Jersey. Subsequently, for a short time, he was master of a Quaker school in Philadelphia. In 1690 he visited New England as a Quaker preacher, where he fell into religious disputation with Cotton and Increase Mather. On returning to Philadelphia he became involved in difficulties with his own sect upon doctrinal points, and was denounced as an apostate by William Penn. After this he organized a new sect of

Christian (or Baptist) Quakers, contemptuously called by his opponents "Keithians." His next step was to enter the church of England, by which he was appointed a missionary to the members of the sect which he had founded and to the Quakers generally. From 1702 to 1705 he was engaged in this employment, traveling through the northern colonies in America, and preaching wherever he could gain a hearing. Hundreds of Quakers are said to have been baptized by him as a sign that they had renounced their former faith. He returned to England in 1706, and was appointed rector of Edburton in Sussex, where he died. He was a man of wide learning, and wrote extensively, first in favor of, then in opposition to, Quakerism, and published two volumes, giving an account of his travels and experiences in America. He was also the author of *A New Theory of Longitude* (1709).

KEITH, GEORGE KEITH-ELPHINSTONE, Viscount, 1746-1823; b. at Elphinstone, Scotland. He entered the navy in his boyhood, and commanded the frigate *Persens* at the battle of Bunker Hill in 1775, and in the action at fort Mifflin on the Delaware in 1777. He served in the Mediterranean squadron, under lord Hood, at Toulon, in 1793; was afterwards made an admiral, and in 1795 sent to operate against the Dutch colonies. In this expedition he was very successful, taking possession of Cape Colony, Ceylon, Cochin, Malacca, and the Molucca islands, and finally in Aug., 1796, capturing the Dutch squadron in w. Africa. For these exploits he was elevated to the Irish peerage as baron Keith of Stonehaven marischal. In 1800 he co-operated with the Austrians in the capture of Genoa. He also co-operated with Abercrombie in the Egyptian expedition, and in 1815 commanded the channel fleet which prevented the escape of Napoleon I., and led to his subsequent surrender to capt. Maitland of the *Bellerophon*. In 1814 he was created viscount Keith of the peerage of the United Kingdom. He died at Perthshire, Scotland.

KEITH, Sir WILLIAM, about 1680-1749; b. in Scotland. After acting for a time as surveyor-general of customs in the southern colonies of America, he was governor of Pennsylvania, 1717-26. His reputation is that of a man intriguing, treacherous, and vain. He wrote a *History of Virginia*, published in 1738, and was the author of a volume of miscellaneous papers that appeared just before his death, which took place in London.

KELAT', or THE FORTRESS, a natural stronghold in Persia. A tract of country 50 or 60 m. in length and 12 or 15 in breadth; is so surrounded by precipitous mountains as to be nearly inaccessible. Wherever the difficulties of ascent or descent on either side of this natural wall were not insurmountable they have been made so by the skill of man. There is also an outer wall or low range of hills inclosing a hollow corresponding to the moat of a fortress. The only two passes into this remarkable region, called the gates of the fortress, have been built up and strongly fortified. It is held by 3,000 armed men. Part of the valley is under cultivation, and the population amounts to nearly 10,000.

KELLERMANN, FRANÇOIS ÉTIENNE, 1770-1835; duke of Valmy. A French gen., son of gen. François Christophe, who served the French republic of 1792-93 with brilliant success, and inheritor of the title conferred by Napoleon on that general. The son was attached to the army of the first consul, distinguished himself by dash and bravery in many battles under Napoleon I., and claimed the credit of the victory of Marengo by reason of the brilliant cavalry charge he led changing the face of the battle. On the first fall of Napoleon he promptly accepted office under Louis XVIII. On Napoleon's return in 1815 he commanded royal troops to oppose him, and ended by humbly offering his services to the emperor. After the battle of Waterloo, in which he distinguished himself by a brilliant and successful cavalry charge, he failed to receive position again from Louis XVIII., but proved a pliant courtier to each succeeding head of the French government.

KELLEY, WILLIAM DARRAH, b. Philadelphia, 1814; orphaned young, supported and educated by his own work and will; first a printer, afterwards learned the trade of jeweler, and while working at his trade studied law; was admitted to the bar in Philadelphia in 1841. From 1846 to 1856 was judge of the court of common pleas of Philadelphia. In 1856, on the repeal of the Missouri compromise, he left the democratic party, became the republican candidate for congress, and was defeated. In 1860 he was delegate to the republican convention at Chicago which nominated Lincoln; and the same autumn was elected representative to the 37th congress from Philadelphia, and has been re-elected to the present time (1880). Now the oldest member in consecutive service, he is styled the father of the house. In the first terms of his congressional service Mr. Kelley was recognized as an earnest and eloquent supporter of all measures to circumscribe slavery, to carry on the war for the union, and at its close to assert and defend the equal rights of all races in the privileges of citizenship. Later he became conspicuous for his energetic defense of a tariff for the protection of the iron interests of Pennsylvania, and of protection to all American manufactures. For the last three terms of his service he has been conspicuous by his able championship of opinions on the subject of money, and financial legislation, differing from those usual in both political parties. He has been erroneously classed with the advocates of unlimited issues of

government notes for money. Nothing in his public life warrants this. But he is an opponent of the monopoly in the issue of money granted to bank corporations, and favors the issue of government notes, payable in gold or silver on demand, in lieu of private corporation bank-notes. He was the great supporter of a bill known as the 3.65 interconvertible bond scheme, introduced in congress in Jan., 1874, which, though ridiculed and violently opposed by both parties when presented, has since been reached in gradual approaches by the secretary of the treasury. Mr. Kelley's views have changed since he began to speak on financial questions, as the result of careful study, which has made him a disciple of Henry C. Carey of Philadelphia. He has been peculiarly comprehensive in his observation of the practical effects of financial legislation on the active industries of the country. At first he saw no great evil lurking in the legislation demonetizing silver; but, when he had studied its effects, he advocated remonetization in speeches so powerful in facts and reasonings, that, before the session closed, remonetization was carried by a majority of five to one in the house of representatives. He was distinguished for the earnestness of his protests against the violent efforts to contract the national "greenback" circulation after all the business transactions of the country for ten years had become adjusted to its volume; and it is claimed that his pictures of the inevitable effect of such interference with business interests were verified by the misfortunes that came upon a large part of the people when their debts were increased and the value of their property diminished by the same act of legislation. The subject of a single or dual coin standard of value having grown into a world-wide study, Mr. Kelley is now prominent in its discussion, and in the effort to conserve the joint use of silver and gold as heretofore. In the summer of 1879 he visited Europe and conferred with Bismarck and with great writers on this subject, in both Germany and France, writing notes on his conferences in letters to the *Philadelphia Times*, since published in a pamphlet entitled *Letters from Europe*.

KELLEY'S ISLAND, one of a group of islands at the w. end of lake Erie, a township of Erie co., Ohio. The group is noted for producing the best grapes for wine grown in the United States e. of the Rocky mountains. The southerly side of the island is only 3 m. from the mainland and 12 m. from Sandusky. Area about 3,000 acres; pop. 80, 888. First surveyed as island No. 6; afterwards known as Cunningham's island; in 1840, by act of the Ohio legislature, it was made the township of Kelley's Island, having been purchased by the brothers Datus and Irad Kelley in 1833-34. The surface is generally flat, from 6 to 80 ft. above the level of the lake. Devonian limestone forms the basis of the soil and is generally quite near the surface. The island was originally heavily timbered, mostly with deciduous trees, with a fringe of fine red cedars upon its shores. Nearly all the former have long since been sold in cord wood to the steamboats of the lakes, which exhausted the supply between 1840 and 1860; now the inhabitants import their fuel. The red cedar was speedily exhausted by its use for posts, and few of the trees, which once formed a picturesque border for the island, are left.

The leading industry is grape-growing and wine-making. The first vines were planted in 1842; the first wine made in 1850. The superior quality of the grapes and wine soon attracted attention. Nearly 1000 acres are now in vineyards, three-fourths of which are of the Catawba grape, and the remainder Concord, Delaware, Inez, Virginia, Norton's seedling, and experimental varieties: average product per acre, 1½ tons. The value of grapes and wines exported amounts to \$150,000 to \$200,000 per annum. Between 1860 and 1870 the small vine-growers built wine cellars of limited capacity, for the construction of which the fissures or caves in the limestone offered good sites. These, previous to 1871, were of capacity ranging from 5,000 to 80,000 gallons each. During that year the Kelley's Island wine company enlarged their cellars to the storage capacity of 400,000 gallons, with steam-engine for elevating, grinding, and pressing the grapes. The capital of the company in 1880 is \$200,000. Price of vineyard-land, \$600 per acre.

The limestone of the island is exported largely for making quick-lime, rubber work, and block-stone for building, and flues for furnaces; its easy quarrying and nearness to the docks giving it a market in all the cities on the shores of the lakes. About 200,000 tons are shipped annually.

During the summer of 1880 there were 390 entrances and clearances of vessels, besides three daily steamboat arrivals and departures. In summer the island has a daily mail, and telegraphic connection via Sandusky. It has good schools, 4 churches, and 2 hotels.

Aboriginal antiquities of peculiar interest were discovered in 1834 by Charles Olmstead of Connecticut. These consist of mounds and earthworks, some of which inclose from 3 to 5 acres, in which abounded broken pottery, pipes, hatchets, arrow heads, etc. But more important are the sculptured rocks on the n. side of the island, where the hieroglyphics on the surfaces of rocks are of so marked a character that gen. M. C. Meigs called the attention of the government to them. They were made the subject of a special report by col. Eastman in 1851, with accompanying drawings. One, known as inscription rock, is engraved and described in Schoolcraft's *Indian Antiquities*. He says of it: "It is by far the most extensive and well sculptured and best preserved inscription of the antiquarian period ever found in America."

KELLOGG, CLARA LOUISE, b. Sumterville, S. C., 1842, but removed with her parents to New Haven, Conn., and afterwards to New York, where she prosecuted her musical education under Albites and other excellent teachers. She made her first appearance in Italian opera in the season of 1861-62, playing "Gilda" in *Rigoletto* with remarkable success for a *débutante*. Three years later she appeared in "Marguerite" in Gounod's *Faust*, and established her reputation as a leading vocalist. In 1867 she made her appearance at her majesty's theater, London, under the management of col. Mapleson, and produced a profound impression. Indeed, it is doubtful if Miss Kellogg was ever so highly esteemed in her own country as in England. She returned to America in 1868, and during the next three years traveled through the states, appearing in the cities and large towns, meeting with the most cordial reception at the hands of critical audiences. Returning to London in 1872, she sang with Nilsson at Drury Lane theater, and with even more pronounced success than before, singing before the queen at Buckingham palace, and being generally complimented in the most flattering terms by the London critics and connoisseurs. From 1874 Miss Kellogg devoted herself to popularizing English opera in America, and with marked success. She organized a strong company, which she rehearsed in a comprehensive repertoire, and traveled through the country, performing in the leading theaters. She first introduced to American audiences the operas of *The Talisman* and the *Lily of Killarney*. Miss Kellogg, while not to be compared with the leading singers of her time—Nilsson, Lucca, Albani, and Patti—is a vocalist of decided natural gifts and acquired excellence. Possessing a voice of great power and remarkable compass, her execution is phenomenal in brilliancy and exactness. Miss Kellogg is, however, unsympathetic, and her voice exhibits a metallic quality which is not grateful to the ear. Her singing appeals rather to the intellect than to the heart, while she has few of the qualities which go to the composition of a great actress.

KELLOGG, GEORGE, 1812-80; father of Clara Louise; b. Conn.; graduated at the Wesleyan university in 1837; from 1838 to 1841 was principal of an academy at Sumterville, S. C. He is distinguished mainly as an inventor and manufacturer, having invented a machine for making jack-chains, a dovetailing machine, a type-distributing machine, improved surgical instruments, etc.

KELLOGG, WILLIAM PITT, b. Vermont, 1831; graduated at Norwich university, and in 1848, at the age of 18, removed to Peoria, Ill., where he studied law, and was entered at the Fulton co. bar in 1853. He became prominent as delegate to republican conventions, and was chosen presidential elector in 1856 and 1860. In 1861 he held the office of chief-justice of Nebraska. - In the war of the rebellion he commanded the 7th Illinois cavalry; was promoted to the rank of brig. gen. for his services in south Missouri, and in the Corinth campaign, in which he commanded gen. Granger's cavalry brigade until the evacuation of Corinth. He left the army on account of ill-health, and was appointed collector of the port of New Orleans in April, 1865. In 1868 he was elected U. S. senator from Louisiana; was placed on the committees of commerce and private land claims, and resigned in 1872. In 1873 he was elected governor of Louisiana, after a bitter contest between the political parties of the state, which compelled the interference of federal military authority, and resulted in a compromise. He held the office from 1873 to 1877, and was admitted to a seat in the U. S. senate, Dec. 1, 1877, for a term of six years.

KELLY, JOHN, b. N. Y., 1822; began at a very early age to earn his living, being employed in a rope-maker's shop when only eight years old, and after that with a mason. In 1835 he learned the printer's trade in the office where the N. Y. *Herald* was printed, and attracted the notice of James Gordon Bennett, its founder, who employed him in his office. But he returned to the mason's trade as an apprentice, and, having learned it, in 1842 started in business for himself. Having had but little education he devoted his leisure to the study of languages and other subjects, and with great success. His facility for the rapid acquisition of knowledge was always remarkable, and in later years was commended by prof. Bonamy Price and Horace Greeley as quite an exceptional characteristic. While still a young man Mr. Kelly interested himself in politics, particularly of New York city, and in 1849 became a member of the Tammany general committee. In 1853 he was elected alderman for a term of two years, and the following year to congress, to which he was re-elected in 1856. While in congress he gained a reputation by his industry, and by the earnestness with which he supported his convictions. He was a member of the ways and means committee, and was active in pressing the homestead bill, and in opposition to the know-nothing movement. In 1858 he was elected sheriff of New York; held the office until 1861, and was re-elected in 1864. At the close of his term (1869) he visited Europe, remaining abroad two and a half years, and traveling through the Holy Land, Egypt, and Arabia. Mr. Kelly had withdrawn from the Tammany committee in 1864, and during the manipulations of the "Tweed ring" was out of the country. On his return in 1872 he applied himself to the reorganization of the democratic party in the city, and with entire success. In 1876 he was appointed to the important position of comptroller of the city of New York, and so conducted the vast transactions of the finance department as to gain the respect and admiration even of his enemies. Bitterly engaged in the local political faction-fighting

for supremacy in the party, Mr. Kelly was the target for constant and severe criticism and animadversion; but his integrity and ability in the administration of his high office were never questioned. Besides his importance in local politics, in which he was recognized as the leader of his party, Mr. Kelly possessed great influence in regard to national affairs, having been a member of nearly every presidential convention after that of 1860. In 1879 he antagonized the regular democratic nominee for governor of the state of New York with such force as to defeat him, running for the office himself on an independent ticket, and polling over 70,000 votes. In Dec., 1880, the term of Mr. Kelly's office as comptroller having expired, he retired from the public service.

KELLY, ROBERT, LL.D., 1808-56; b. New York; graduated from Columbia college, at the head of his class in 1826. He entered at once into partnership with his brothers, devoting himself to business until 1837, when he retired to give his attention to educational and other public affairs. He was president of the board of education; a member of the state board of regents; a trustee of Madison and New York universities; one of the founders of the free academy (now college) of New York, and also of the university of Rochester. He was for many years president of the board of managers of the New York house of refuge, and active in many other benevolent, financial, and literary associations. He was a scholar of fine attainments, and a master of many languages. At the time of his death he was chamberlain of New York city.

KELLY, WILLIAM, 1807-72; b. New York; son of Robert, and one of three brothers, John, William, and Robert, who at an early age conducted the extensive business of J. W. Kelly & Co., being distinguished as the "boy merchants." In 1837, John having died, the firm was dissolved, the remaining partners retiring from business. In 1842 he went to reside at Ellerslie, near Rhinebeck, Dutchess co., New York, 15 m. n. of Poughkeepsie, engaging largely in agricultural pursuits. In 1854 he was elected president of the New York state agricultural society, and president of the overseers of the state agricultural college at Ovid, being one of the founders of that institution. He was for years the president of the trustees of Rochester university; was president of the board of Vassar college, and of several religious and charitable organizations. He was an energetic promoter of all enterprises of a benevolent character, and a clear-headed man of business, whose talent was employed in all departments of mercantile activity, railroads, steamboats, manufactures, and banking. He was a democrat in politics, and served his state in its senate, 1855-56, coming before the people as candidate for governor in 1860.

KE'LOID, or CHILOID, a semi-malignant growth of the skin situated on the trunk and extremities, generally occurring in those who are otherwise in good health. The growths are generally flat and expanded, and of an oval, round, or irregular shape. They sometimes remain stationary for years, but have a tendency to ulcerate and bleed, although they often advance slowly, leaving a red, contracted cicatrix behind them. Negroes are said to be more subject to the disease than whites. Similar growths sometimes follow the imperfect cicatrization of burns or blisters, which are more warty and vascular, and often cause much itching and burning. Cooling applications afford temporary relief, but the proper treatment is excision with the knife, which should be thoroughly done, as the bordering parts appear to have a tendency to malignant degeneration, and do not easily heal, repeated operations often being necessary. See TUMORS.

KELUNG', a t. and treaty-port of China, in Formosa, on the n. coast. Deposits of coal are found in its vicinity, for supplies of which the place is much visited by steamers. It has a general trade in camphor, coal, and coal-dust.

KEMAON, or KAMAUN. See KUMAON, *ante*.

KEMBLE, ADELAIDE, 1820-79; b. England; the daughter of Charles Kemble, who was the youngest son of Roger Kemble. She was the niece of Mrs. Siddons, the famous actress, and the sister of Mrs. Frances Anne Butler, better known as Fanny Kemble, and began public life with great promise as an operatic singer, making a successful début at Covent Garden, and appearing at several Italian cities, with ever-increasing celebrity. In 1843, after a short, though brilliant professional career, she married Mr. Edward Sartoris, an Italian gentleman of fortune, and retired to his estates in Italy. In 1867 she published *A Week in a French Country House*. In May, 1874, her son, Algernon Charles Sartoris, married the daughter of president Grant.

KEMBLE, ELIZABETH, 1761-1836; a daughter of Roger Kemble; made her first appearance upon the stage in 1783 at Drury Lane theater, taking the part of "Portia" in the *Merchant of Venice*. She was married in 1785 to Mr. Whitlock, an actor, with whom in 1792 she visited the United States on a professional tour. Mrs. Whitlock attained a high degree of public favor, and had the honor of appearing before Washington at Philadelphia. In 1807 she retired from the stage.

KEMBLE, FRANCES ANNE (MRS. FANNY KEMBLE), b. England, 1811; daughter of Charles Kemble, and granddaughter of Roger Kemble. The famous Mrs. Siddons was her father's sister. She made her first appearance on the stage, Oct. 5, 1829, in the character of "Juliet," with her father in the part of "Romeo." In 1832, better known to the world as Fanny Kemble, she came to New York, accompanied by her father. She appeared for the first time as "Bianca," in *Fazio*, at the old Park

theater. She was then in the midst of her theatrical career; success was assured. As "Portia" and "Lady Teazle" she shone unrivaled, and reached her crowning triumph as "Julia," in Sheridan Knowles's masterpiece, the *Hunchback*, written expressly for her. In 1834 she married Pierce Butler of Philadelphia, a descendant of Pierce Butler of South Carolina; retired from the stage, and in 1838 went to South Carolina. In 1847 she made a reappearance on the English stage as "Lady Teazle," at the theater Royal, Manchester. In 1849 she returned to the United States, and, having obtained a divorce from her husband, resumed her maiden name and went to reside in Lenox, Berkshire co., Mass. Since that time she has given readings from Shakespeare and other dramatic authors in the principal cities of the United States and Great Britain. She has a magnificent presence; her voice is characterized as flexible, ample in quantity, and harmonious, and her self-possession as remarkable. During the war of the rebellion she resided in England, and contributed valuable articles to the *London Times* in favor of the U.S. government. She published *Francis the First, an Historical Drama* (Lond., 1832); *Journal of Frances Anne Butler* (Phila., 1835); *The Star of Seville, a Drama* (1837); *Poems* (Phila., 1844); *A Year of Consolation* (1847), descriptive of a tour through France to Rome, and Italian life and scenery; *Residence on a Georgia Plantation* (1863); and a volume of poems.

KEMBLE, GEORGE STEPHEN, 1758-1822; the second son of Roger Kemble, the founder of the family of British actors; b. Kingston, England. He was intended for the medical profession, and was placed with a surgeon at Coventry, but preferred the stage, and, after practicing in the country, made his first appearance at Covent Garden in 1783. He was engaged also at the Haymarket. He afterwards was the manager of a company in London, Edinburgh, and Glasgow. He was a good actor, but became very corpulent, and acted only in *Falstaff*.

KEMBLE, GOUVERNEUR, 1786-1875; b. New York; son of Peter Kemble and Gertrude Gouverneur Kemble; graduated at Columbia college in 1803; traveled extensively in Europe during the Napoleonic wars; was engaged in procuring supplies for the American squadron at the time of the war with Algiers, about 1815. In 1817 he established the West Point foundry at Cold Springs; 1837-41 was a member of congress. In 1846 he served as one of the delegates from New York to the state constitutional convention. He was a public-spirited citizen, warmly interested in every project for promoting the commercial growth of the city and the nation; also a lover of art and a judicious friend of artists.

KEMBLE, JOHN PHILIP (*ante*). He was carefully educated, with a view to his adoption of one of the learned professions as a career, his father not designing that he should follow the stage. Roger Kemble was both an actor and the manager of a provincial theater; and, one after another, all of his children attempted the drama, with different degrees of success. John was an excellent scholar, and his memory was so tenacious that it is said of him, when at school, he committed 1500 lines of Homer and recited them without an error. His last performance was at Covent Garden theater, June 23, 1817, when he played "Coriolanus." The next two years were occupied in travel, during which he visited Rome, having often expressed a desire to pass some time among the scenes made famous by Cato, Brutus, and Coriolanus, whom he had so often represented during his stage life. At the last he settled at Lausanne, where he was attacked with the fit of apoplexy which resulted in his death. While Kemble was a great natural actor, his magnificent effects were not produced without profound study. In his ordinary social life he was easy and unconventional in his manner; not in the least, when off the stage, assuming that presence which it seemed impossible for Mrs. Siddons ever to put away from her. But once engrossed in the character which he had undertaken, he became merged in it, and took on a dignity of mien and a loftiness of delivery that were imperial. It was this marvelous capacity to embody the more sublime characters of the drama, and particularly the creations of Shakespeare, that distinguished Kemble from all other actors of his time. In assuming these impersonations he appeared to become imbued with the spirit and the atmosphere of the age and race indicated, and was no longer an actor, or even an Englishman. Possibly, until the appearance of Salvini, he had no successor who could so divest himself of nationality, and so perfectly conform to the requirements of an alien character.

KEMBLE, ROGER, 1721-1802. He was the founder of the family of actors which bears his name, and of which his daughter Sarah (see SIDDONS, SARAH, *ante*) and his son John Philip (see KEMBLE, JOHN PHILIP, *ante*) are the most celebrated.

KEMPELEN, WOLFGANG VON. Baron, 1734-1804; b. Hungary; attained to high official station, but became chiefly renowned for his extraordinary mechanical talent. He was a chess-player of profound ability, and this fact doubtless induced him to turn his mechanical skill to the construction of the automaton chess-player, with which his name has ever since been connected. See AUTOMATON. Kempelen also produced an automatic figure which articulated certain words distinctly, in explanation of which he wrote *Le Mécanisme de la Parole, servir de la Description d'une Machine Parlante*, etc., 1791.

KEMPENFELT, RICHARD, 1720-82; b. England; was made rear-admiral in the royal navy in 1779. In 1781, during the French war, he distinguished himself by capturing a French convoy which was on its way to the West Indies. In 1782 he was in command of the *Royal George*, a man-of-war carrying 108 guns, which sank on Aug 29 off Spithead. Being keeled over for repairs, a sudden gust of wind caused the sea to flow into her open ports, when she went down with all on board, numbering about 600 persons, and including the rear-admiral, officers and crew, marines, women, and a number of Jews. More than half a c. later portions of the vessel and cargo were brought to the surface by divers.

KEMPER, a co. in e. Mississippi, bordering on Alabama; 775 sq.m.; pop. 12,920—7,214 colored. It is intersected by the Mobile and Ohio railroad, and is drained by a number of streams, chiefly by Sucarnoochce creek. The soil is fertile, but a considerable portion of the surface is covered with forests. The productions are Indian corn, cotton, and sweet potatoes. Kemper co. has gained an evil reputation on account of the vicious character of the stronger portion of the inhabitants of some parts of it. At DeKalb, capital of the co., on April 29, 1877, occurred what is known as the Chisolm massacre, when judge W. W. Chisolm, his daughter and son, were brutally murdered by an infuriated but characteristic mob of the natives. The cause of the attack lay in the existence of a factious condition in politics, out of which there grew frequent deadly feuds and popular outbreaks. In connection with this state of things one Gully had been waylaid and murdered. The man headed a faction which opposed judge Chisolm and only awaited an opportunity to compass his death. The killing of Gully was charged upon judge Chisolm, as an accessory or instigator, although apparently without a shadow of evidence to sustain the charge; a warrant for the arrest of the judge was obtained, and he was lodged in jail, when the jail was besieged by a mob of the friends of Gully and enemies of the judge, and though he defended himself, aided by one of the keepers, and by his courageous wife, son, and daughter—the latter mere children—he was shot to death, while only Mrs. Chisolm was permitted to escape alive. The daughter and son fell riddled with balls. The occurrence produced a profound feeling throughout the country, but the customary delay of the law was protracted, so that though indictments were found against 31 persons for their connection with this tragedy, it was not until three years later that a trial was held which resulted in the acquittal of the accused. Mrs. Chisolm was present at the trial, sustained by the counsel of hon. Stewart L. Woodford, U.S. district attorney of New York, an act on his part which, under the circumstances of the existing state of public feeling in Kemper co., may be characterized as both generous and courageous. It is a remarkable feature in the history of this case that all public expression in the county was in sympathy with the assassins of judge Chisolm and his family, and that neither the governor of the state, the courts, nor the Federal government could procure the vindication of justice in regard to it.

KEMPER, JACKSON, D.D., LL.D., 1789-1870; b. Pleasant Valley, N. Y.; graduated in 1809 at Columbia college; ordained priest in the Protestant Episcopal church in 1812; was rector for 20 years in Philadelphia and Norwalk, Conn., then missionary bishop of Indiana and Missouri, and subsequently of Iowa and Wisconsin.

KEMPER, REUBEN, d. 1826; b. Va.; emigrated to Ohio, and thence to Mississippi, where Kemper co. was probably named in his honor. He was adventurous in disposition, and was continually engaged in organizing expeditions against the Spaniards, who, until 1819 held possession of Florida, and were at this period also engaged in suppressing Mexican insurrection against their dominion in that country. Kemper was identified with several movements of this character, and became noted as a desperate fighter and confirmed "filibuster." In 1812 he joined a powerful expedition under Gutierrez and Toledo, being elected colonel of the American contingent, which was successful in gaining several important battles. Owing to disagreements between the Mexicans and Americans, the latter abandoned the cause, and returned home. At the battle of New Orleans Kemper held an important charge and distinguished himself.

KEN, THOMAS, Bishop, 1637-1711; b. Berkhamstead, England; educated at Winchester and Oxford; fellow of Winchester college; domestic chaplain to bishop Morley; rector of Brixton in the isle of Wight, and prebend of Westminster. In 1674 he visited Rome with his nephew, Isaac Walton, and on his return, after five years' absence, accompanied Mary, princess of Orange, as her chaplain, to Holland. In 1684 he became chaplain to Charles II., whom he attended in his last illness, "speaking to him," as Burnet records, "with great elevation of thought and expression, and like a man inspired." Shortly before the king's death he nominated Ken to the bishopric of Bath and Wells. He was not fully invested with the episcopal functions till after the accession of James II. He was the enemy of popery, and for refusing to obey the order of the king to read the declaration of indulgence was sent to the tower with six others. Nevertheless, when, after the revolution, the prince of Orange ascended the throne as William III., he refused to transfer his allegiance to the new king, considering James still his lawful sovereign. For this he was deprived of his bishopric. But many even of his opponents esteemed him, and queen Mary on her accession settled on him a pension. He was a man of solid and extensive learning, refined taste and wide sympathies, and in office displayed great zeal and self-devotion. He is the author of several volumes of sermons, theologi-

cal treatises and of many devotional writings, of which his morning and evening hymns are the most popular. The familiar doxology, "Praise God, from whom all blessings flow," is of his composition.

KENAI'ANS, a group of Indian tribes inhabiting Alaska, n. of the Atna, or Copper river; so named from the peninsula of Kenai, which divides Cook's inlet from Prince William's sound. They belong to the Athabascans, one of the two great families of aborigines in which are included all the Pacific tribes from Behring's straits to New Mexico and even as far e. as Texas. The Kenaians are also called Tnainas; they number at present about 25,000, and are a peculiar people, exhibiting unmistakable evidences of their northern Asiatic origin. They practice cremation and infanticide, and divide by caste into clans having no intimate relations with each other, as of intermarriage, etc. They include as many as 15 distinct tribes, varying in language, whoever, more than in customs.

KENDALL, a co. in n.e. Illinois; intersected by the Fox and Pishtaka rivers; 324 sq.m.; pop. '80, 13,084. The surface is undulating and diversified by prairie and woodland. Corn, oats, hay, pork, and butter are the chief productions. The county is intersected by the Chicago, Burlington, and Quincy railroad, and by the Fox river branch of same. Capital, Yorkville. Valuation of real and personal property, \$10,801,080.

KENDALL, a co. in s. central Texas; intersected by the Guadalupe river; 650 sq.m.; pop. '70, 1536. The surface is hilly or undulating. The soil partly fertile. Cattle, corn, and grass are the staple productions. Capital, Boerne. Valuation of real and personal estate, \$360,245.

KENDALL, AMOS, LL.D., 1787-1869; b. Mass.; graduated at Dartmouth, and commenced the practice of law in Kentucky. For a time he held the position of tutor in the family of Henry Clay, and afterwards edited the Georgetown, Ky., *Argus*. He was appointed by president Jackson to the position of fourth auditor in the U. S. treasury department, and during Jackson's second term of office to the postmaster-generalship. Kendall founded the deaf and dumb asylum at Washington, and interested himself generally in the cause of education and of public charity.

KENDALL, GEORGE WILKINS, 1807-67; b. N. H.; a practical printer, who, in 1835, founded in New Orleans the *Picayune*, which he succeeded in building into a valuable property and a powerful influence in southern politics. In 1841 he joined the venture whose history he afterwards wrote in his *Narrative of the Texan Santa Fé Expedition*. Having witnessed the progress of the Mexican war, he devoted himself to the production of an expensive and handsomely illustrated volume, entitled *The War between the United States and Mexico, embracing 12 colored plates of the principal conflicts, by Carl Nebel*. The latter part of his life was passed on an extensive cattle-farm which he established in Texas.

KENDALLVILLE, a city of Noble co., Indiana, the center of a rich agricultural region and a place of considerable business; pop. '70, 2,164. The Lake Shore and Michigan Southern and the Grand Rapids and Indiana railroads intersect each other here. There are in the place 8 churches, 1 national bank, several manufactories, and a weekly newspaper.

KENDELL, ROBERT VON, b. at Königsberg, 1824. In 1862 he held a position at the court of Breslau. In 1863 Bismarck appointed him to a place in the ministry of foreign affairs, and since that time he has been the confidential companion of the great minister in his diplomatic negotiations and travels. Sometimes he has been sent alone on important diplomatic business. He represented the North German confederation at the opening of the Suez canal in 1869, and in the same year was elected to the diet. In 1873 he was appointed ambassador to Rome.

KENDRICK, ASAHEL CLARK, D.D., LL.D.; b. Vt., 1809; graduated at Hamilton college in 1831; appointed in 1832 professor of Greek and Latin in Madison university at Hamilton; was elected professor of Greek in the Rochester university in 1850, where he still resides. He visited Europe 1852-54, attending lectures in Athens, Italy, and Germany. His contributions to reviews and magazines have been numerous, and he has published a revision of *Olshausen's Commentaries* on the New Testament; *Echoes*, a volume of translations from the French and Greek poets; an edition of *Xenophon's Anabasis*, with notes and vocabulary; translation of the epistle to the Hebrews, with notes, for Lange's *Commentary*; *Life and Letters of Emily C. Judson*; *Our Poetical Favorites*, 3 vols. He is now one of the American revision committee on the New Testament, in connection with the British committee, and ranks among the foremost American scholars in his department.

KENDRICK, JOHN, d. 1800; b. Martha's Vineyard; was 1st lieut. of the brig *Rising Empire* in 1776, commissioned by the state of Massachusetts, and afterwards commanded a privateer. In 1787 commanded the brig *Columbia*, which, in company with the sloop *Washington*, was dispatched from Boston by Barrell, Bulfinch & Co., under the American flag, to explore the n.w. coast. He arrived at Nootka sound Sept. 17, 1788, and wintered there. After a voyage to China, he returned to Nootka, and sailed through the entire length of the strait of Juan de Fuca, and to 55° north. He explored

the country in which Nootka sound is situated, and ascertained its insular character. For his services as an explorer he was awarded a medal by congress. In Aug., 1791, while lying at Nootka sound (which was then a subject of dispute between European nations), fearing to be taken by Spanish vessels if he ventured out to sea, he discovered a strait leading north-westward into the Pacific, which he named Massachusetts sound. He first drew the attention of the inhabitants of the Hawaiian islands to sandal-wood as an article of export, which was then in demand in the China market. His residence was in Wareham, Mass. He was mortally wounded in the harbor of Kealahakea bay, during the firing of a salute in his honor, by an English captain, having been struck, while standing in his own vessel, by a portion of grape-shot that was left accidentally in one of the guns.

KENEALY, EDWARD VAUGHAN HYDE, D.C.L., 1819-80, received his education at Trinity college, Dublin, and developed a surprising aptitude for the acquisition of languages, of which he learned, sufficiently at least to enable him to translate songs and ballads with facility, no fewer than ten modern and three ancient. A man of surprising versatility and varied accomplishment, he was no less at home in pleading a cause at the bar than in constructing a pantomime or writing a contribution for *Fraser's* or the *Dublin University Magazine*. He assisted at Maginn's *Homeric Ballads*, and published *Brallaghan, or the Deipnosophists*, of his own work. He was an enthusiastic legal advocate, and became most widely known for the persistency which characterized his conduct of the celebrated Tichborne case in the interest of "the claimant." In 1874 he established a newspaper called *The Englishman*, which exerted a powerful influence and gained a wide circulation. In 1875 he was elected to parliament, and carried into the house of commons the same combative disposition which had previously influenced his course. The defeat and condemnation of his client, the self-styled sir Roger Tichborne, soured and embittered his disposition, and rendered the latter years of his life distressingly prominent in their antagonism to general public opinion.

KE'NEH, or GHENEH, the ancient Cænopolis, a t. of upper Egypt on the n. bank of the Nile, nearly opposite the ruins of Denderah, and 34 m. n. of Thebes. It has a large trade with Arabia by way of Cossein, and is one of the stations for the pilgrims from west and central Africa. Travelers to and from India sometimes travel by the Nile through Keneh. It is noted for the manufacture of porous water jars, etc., which are floated down the Nile on rafts.

KEN'ITES, a tribe or nation originally occupying with the Amalekites the country of Arabia Petræa. In the time of Abraham they are mentioned (Gen. xv. 19) in connection with the Kenizzites and Kadmonites. At the exodus they pastured their flocks around Sinai and Horeb. Jethro was a Kenite (Judges i. 16), and as he is represented in Exod. ii. 15, 16, as dwelling in the land of Midian, and as being prince or priest of Midian, and in Num. x. 29, as being a Midianite, it may be inferred that the two people were the same, or at least that the Kenites were a branch of the larger nation of the Midianites. The Kenites led a nomadic life in the region n. of Sinai. The kindness which Jethro showed Moses led to a firm alliance between the two peoples. The family of Jethro accompanied the Israelites into Palestine, where they continued their nomad life. Heber, the husband of Jael, who slew Sisera, belonged to the family of Jethro, and is called "Heber the Kenite." Other families of Kenites resided in Palestine, among whom were the Rechabites (1 Chron. ii. 55, Jer. xxxv. 2). The region which they received in the southern border of Judah they retained in the time of David, but after this nothing more is heard of them in sacred history. The Kenites in the time of Jethro possessed a knowledge of the true God, and there is reason to believe that that knowledge continued with the families that settled in Palestine.

KENNEBEC', a co. in s.w. Maine, established Feb. 20, 1799; 1000 sq.m.; pop. '80, 53,061. Portions of its territory were taken off in 1809, 1827, 1838, and 1854, to form other counties. It contains 24 towns and 3 cities, Augusta, Gardiner, and Hallowell. The Kennebec river flows through its center, and the Androscoggin crosses the western portion. Its rich valleys and wide arable lands are diversified by beautiful lakes, brooks, and waterfalls. The climate is healthy, though the winters are long and severe. It has great grazing facilities. The chief natural products are hay, potatoes, grain, wheat of superior quality, fruit, garden vegetables, wild berries, and maple sugar. Quarries of granite suitable for building purposes are extensively operated near the Kennebec river, and clay slate is also found. The soil is a clay loam from 4 to 20 in. deep, with hard clay pan. The lakes and ponds emptying into the tide-waters of the Kennebec furnish valuable water-power that is largely employed. The principal industries are the manufacture of clothing, oil-cloth, woollen goods, long lumber, shingles, clapboards, scythes and bricks. Total value of manufactures in '70, \$7,006,204. Ice is largely exported. It is intersected by the Maine Central and Kennebec and Portland railroads, and there is easy access to all commercial centers by rail, steamer, and coaster. Co. seat, Augusta, which is also the capital of the state.

KENNEBUNK', a t. in York co., Maine, 24 m. from Portland, on the Kennebunk river, formerly included in the town of Wells; incorporated June 24, 1820; pop. '70, 2,603; total value of real estate, \$1,577,504. It is on the Boston and Maine railroad. It

employs the most valuable water-powers at the head of tide on the Mousam river (which is fed by the great Mousam pond, 7 m. long), running cotton-mills, grist-mills, sash and blind factories, machine shops, and saw-mills. It has an iron foundry, a national bank, 6 churches and an insurance company. The industries include the manufacture of twine, braid, boots, and plows. Granite of a superior quality is quarried extensively.

KENNEBUNKPORT, a t. in York co., Maine, formerly known as cape Porpoise, and originally incorporated 1717 under the name of Arundel; name changed 1821; pop. '70, 2,372. Valuation of real estate, '70, \$901,431. It is at the mouth of the Kennebunk river, 4 m. from Kennebunk and 10 m. s. of Biddeford. It has a fine harbor, and is much frequented as a summer resort. It has 5 churches and a graded school, and engages quite extensively in navigation. It has good water-powers, with shingle, grist, carding and saw mills, some of them operating only at high water.

KENNEDY, BENJAMIN HALL, b. 1804; graduated at Cambridge in 1827, and the following year was elected a fellow and classical lecturer of St. John's college, Cambridge. After having held for 6 years the position of assistant master at Harrow, he became head master of Shrewsbury school in 1836, in which office he remained during 30 years. He resigned it in 1866 to accept the regius professorship of Greek at Cambridge, becoming canon of Ely in 1867, and a member of the university council in 1870. Dr. Kennedy published a number of classical text-books, translated *The Birds* of Aristophanes into English verse, likewise the Psalter, besides publishing a collection of Greek, Latin, and English poetry.

KENNEDY, CHARLES RANN, 1808-67; brother of Benjamin H., b. at Birmingham, England; graduated at Cambridge, became a fellow of the university, and was admitted to the bar in 1835. He was author of several law books, a volume of poems, and translations from the Greek and Latin poets.

KENNEDY, GRACE, 1782-1825; a Scotch writer of prominence during the early part of the 19th century. She wrote novels of a religious tendency, among which were *Father Clement*; *Anna Ross*; *Dunallan*; *Jessie Allan*; *Decision*, etc., which were translated into German and French, and were highly esteemed.

KENNEDY, JOHN PENDLETON, LL.D., 1795-1870; b. Baltimore. He was admitted to the bar, was for several years a member of the Maryland house of delegates; from 1839-1845 was a member of congress, where he advocated whig principles, and during Fillmore's administration was secretary of the navy. But he is now remembered chiefly as a writer of sketches and novels of considerable merit. Of these, *Horse-Shoe Robinson* (1835), whose action takes place during the American revolution, was the most popular and still finds readers. The scene of *Rob of the Bowl* (1838) is laid in Maryland in the time of Cecil Calvert.

KEN'NET, a river in Berks co., England, whose course lies nearly eastward from East Kennet, near which place it rises, until it empties into the Thames at Reading.

KENNET, WHITE, D.D., Bishop, 1660-1728; b. Dover, England; educated at Westminster school and Oxford; he early became rector of Amersden. In 1691 he returned to Oxford as tutor and vice-principal of Edmund hall, where he had for a pupil the famous antiquary, Hearne. He was afterwards archdeacon of Huntingdon, dean of Peterborough, and in 1718 bishop of Peterborough. He was an eloquent preacher, a learned antiquary, historian, and theologian, and a man of great mental activity. He was a keen disputant, took an active part in the religious controversies of the time, and was a strong opponent of the high church party. He published numerous works, the most important of which are *Parochial Antiquities*; *History of England from the Accession of Charles I. to that of Queen Anne*; *A Register and Chronicle, Ecclesiastical and Civil, from the Restoration of King Charles II.* His sermons and pamphlets are now interesting principally to the antiquary. He left numerous historical manuscripts now a part of the Lansdowne collection in the British museum.

KENO'SHA, a co. in s.e. Wisconsin, bordering on lake Michigan on the e., drained by the Fox and Des Plaines rivers; 280 sq.m.; pop. '75, 13,907. Its fertile soil affords a luxurious production of wheat, oats, Indian corn, hay, flax, etc. This county is traversed by the Chicago and Northwestern railroad. Capital, Kenosha.

KENO'SHA, a city of Wisconsin, the capital of Kenosha co., on lake Michigan, 51 m. n. of Chicago, and 34 m. s. of Milwaukee; pop. '70, 4,309. The Chicago and Milwaukee and the Kenosha and Rockford railroads pass through the place, which also has a good harbor. There are 9 churches, 2 weekly newspapers, 4 hotels, a public library, excellent public schools and school-buildings, and manufactories of carriages, wooden implements and furniture, leather, etc.; also foundries, lumber-yards, and numerous stores and shops.

KENO'ZA LAKE, in Haverhill, Mass., a small but very beautiful sheet of water, a favorite resort for parties of pleasure. The poet Whittier, whose boyhood was spent in the town, has made it a subject for his verse.

KENRICK, FRANCIS PATRICK, D.D., 1797-1863; b. Dublin; was sent in 1815 to Rome, where he studied two years at the house of the Lazarists and four years in the college of the Propaganda; was ordained a Roman Catholic priest in 1821, and imme-

diately came to the United States to take charge of an ecclesiastical seminary about to be started at Bardstown, Ky., which he conducted for nine years. In 1828 he published *Letters of Omicron to Omega*, in defense of the Roman Catholic doctrine of the eucharist in reply to Dr. Blackburn, of Danville college. In 1830 he was consecrated bishop of Arath *in partibus*, and made coadjutor to bishop Connell, of Philadelphia, whom he succeeded in 1842. In the anti-papal riots in Philadelphia he prevented, by his wisdom and firmness, retaliatory acts on the part of his people. He founded the theological seminary of St. Charles Borromeo in Philadelphia. In 1851 he was appointed by the pope archbishop of Baltimore and "apostolic delegate" to preside over the first plenary council of the United States held at Baltimore in May, 1852, and in 1859 the "primacy of honor" was conferred upon him and his successors, giving them precedence over all Roman Catholic prelates in the United States. He published, in 1837, letters *On the Primacy of the Holy See and the Authority of General Councils* in reply to bishop Hopkins, of Vermont. His most celebrated works are his Latin treatises, *Theologia Dogmatica*, 4 vols., and *Theologia Moralis*, 3 vols., which are used as text-books in nearly all the Roman Catholic seminaries. At the time of his death he was engaged in revising the English translation of the Scriptures with copious notes. He was a vigorous writer, an acute controversialist, and able biblical critic. During the rebellion he was thoroughly loyal to the Union.

KENRICK, PETER RICHARD, D.D., archbishop of St. Louis, Mo., and brother of the archbishop of Baltimore; b. Dublin, 1806; educated at Maynooth; ordained priest in Ireland, and soon afterwards emigrated to Philadelphia, where he was editor of the *Catholic Herald*, and published several works. He was also made vicar-general of that diocese. In 1841, at the request of bishop Rosati, of St. Louis, he became coadjutor with the right of succession. In 1843, on the death of Dr. Rosati, he was appointed bishop. He has been active in the cause of education, and founded numerous charitable institutions. He is the author of *The Holy House of Loretto* and *Anglican Ordination*. He was a member of the Vatican council, and though he opposed the defining of the dogma of papal infallibility as inopportune, he acquiesced in the final decree, and promulgated it with the other decrees of the council.

KENSETT, JOHN FREDERICK, 1818-72; b. Conn.; was, when quite young, an engraver of vignettes for bank-notes, and, while practicing this art, studied painting for amusement. He made a journey to England in 1840, and remained there some years. In 1845 he exhibited in the royal academy, and meeting with success, studied in Rome during two seasons, contributing some of his finished works to the American art union. In 1848 he exhibited in the national academy of design, where his works attracted general public notice. From this period he made his residence in New York, contributing regularly to exhibitions and gaining a high reputation. The distinguishing features of his work are harmony in composition, with delicacy and refinement in execution. He was a close observer and an accurate delineator of nature, in whom the poetic temperament was manifest. His works are frequently luminous, and always striking in color.

KENT, the central co. of Delaware; bounded e. by Delaware bay, and drained by Choptank river and Duck and Mispillion creeks; 500 sq.m.; pop. '70, 29,804. An extensive portion of the surface is covered with forests. The soil is generally fertile. Corn, wheat, oats, peaches, and pork are the chief products. The county is intersected by the Delaware, and the Maryland and Delaware railroads. Valuation of real and personal estate, \$19,338,199. Capital, Dover; also the capital of the state.

KENT, a co. in the n.e. part of Maryland; bounded n. by Sassafras river, on the s.e. by Chester river, and on the w. by Chesapeake bay; 280 sq.m.; pop. '70, 17,102. It has an undulating surface and a soil moderately fertile. Wheat, oats, corn, peaches, and other fruits are the staple productions. It is intersected by the Kent county railway. Valuation of real and personal estate, \$13,090,185. Capital, Chestertown.

KENT, a co. of Michigan, in the s.w. central part of the southern peninsula; 864 sq.m.; pop. '80, 73,252. The surface is rolling, with a rich limestone soil. Cattle, wool, grain, hay, and butter are among the chief productions. The chief branches of manufacture are lumber, carriages, flour, cooperage, clothing, and saddlery. The county is traversed by numerous railroads, chiefly centering in Grand Rapids, the capital.

KENT, a co. of Rhode Island, bordering on Connecticut; bounded on the e. by Narragansett bay, and drained by the Pawtuxet, Moosup, and Wood rivers; 190 sq.m.; pop. '80, 20,587. Its surface is partly hilly, and much of it is covered with forests. The chief agricultural productions are hay, potatoes, and corn. The prosperity of the county depends chiefly upon cotton manufacture, there being within its limits 25 establishments for printing cotton goods. The county is intersected by the Providence and Stonington, and the Hartford, Providence and Fishkill railroads. Valuation of real and personal estate, \$17,849,153. Capital, East Greenwich.

KENT, a co. of New Brunswick, bordering on the gulf of St. Lawrence and Northumberland strait; drained by the Richibucto, Cocagne, and other navigable streams; 1720 sq.m.; pop. 19,101. The harbors of Cocagne, Buctouche, and Richibucto offer capital facilities for ship-building, and much timber is shipped thence to England. The county is traversed by the Intercolonial railway. Capital, Richibucto.

KENT, a co. of Ontario, bordering on lakes St. Clair and Erie; intersected by the Thames river, and traversed by the Great Western and Canada Southern railways; 644 sq.m.; pop. '70, 26,836. Capital, Chatham.

KENT, EDWARD AUGUSTUS, Duke of, 1767-1820; the fourth son of George III. and father of queen Victoria; entered the army and served under sir Charles Grey in the attack on the French West India islands; and in recognition of his valor, fort Royal, in Martinique, was changed to fort Edward. He was made duke of Kent and Strathearne, and appointed commander-in-chief of the British forces in North America. The name of the island of St. John was changed in his honor to Prince Edward island. In 1818 he married Victoria Maria Louisa, relict of the prince of Leiningen. Alexandra Victoria, now queen, was his only child.

KENT, JAMES, LL.D., b. in Fredericks, N. Y., July 31, 1763; d. Dec. 12, 1847. He graduated from Yale college in 1781, and was admitted to the bar in 1785. He was elected to the New York assembly in 1790 and 1792, and again in 1796, having in the meanwhile removed to New York city, where, 1793-98, he was professor of law in Columbia college. His ability was already recognized by men like Hamilton and Jay, with whose political principles he was in sympathy, and the latter, then governor of New York, appointed him in 1798 a justice of the supreme court, of which from 1804-14 he was chief-justice. In 1814 he became chancellor of the state, which office he retained till 1823, when his age passed the constitutional limitation, and compelled his retirement. He then resumed his lectures at the Columbia college law school. His *Commentaries upon American Law* appeared from 1826-30. Their great merits were speedily recognized both in this country and England, and have made the work, which has since passed through many editions, the classic of American law literature. Kent's services to American jurisprudence, however, can be best judged by his printed decisions in the N. Y. reports. He administered law with all the learning of the books, but with a regard for the needs of a new community in which hitherto unmooted questions were constantly arising for adjudication. As a chancery judge he enlarged the sphere of his court, which till his time had been of little importance, and it is not too much to say that he created courts of equity in New York.

KENT, WILLIAM, 1685-1748; b. Yorkshire; was apprenticed to a coach-painter, but believing that he had talent for something higher, he went to London to pursue portrait and historical painting. Here he found those who furnished him the means of completing his studies in Italy. After residing there six years he formed the acquaintance of the earl of Burlington, and returning to England he lived with him for several years; but not having the prospect of success in the pictorial art, he relinquished it for ornamental architecture and landscape gardening, greatly distinguishing himself as the founder of a new style of landscape gardening, the main feature of which was the restoration of nature, which previous artists had entirely banished from their designs. His new style is illustrated in the Kensington gardens. Walpole styles him "the creator of modern gardening." As an architect, he designed the splendid palace of the earl of Leicester at Holkham and the temple of Venus at Stowe.

KENT ISLAND, the largest island in Chesapeake bay, 15 m. long, belongs to Queen Anne co., Md.; pop. 1847. Its soil is fertile. The first settlement of the state was made upon it, 1631, by William Claiborne and others. It has 4 churches, and is the seat of a profitable oyster fishery.

KENTON, a co. of Kentucky, lying upon the Ohio river, directly s. of Cincinnati; 170 sq.m.; pop. '80, 43,983. Its surface is hilly, its soil fertile. Tobacco, corn, and live-stock are its chief productions. It has also considerable manufacturing interests. The Kentucky Central and the Louisville and Cincinnati railroads pass through the county. Capital, Covington.

KENTON, the capital of Hardin co., O., on the headwaters of the Scioto river, near the center of the state; pop. '70, 2,610. It is the seat of a considerable lumber trade, and is in the midst of a prosperous agricultural region. It has 3 weekly newspapers, banks, churches, and manufactories.

KENTON, SIMON, 1755-1836; b. Va.; one of the first settlers of the state of Kentucky. He fled from Virginia on account of a dispute with a rival in love, whom he supposed himself to have killed, and became an associate of Daniel Boone. He was a daring scout and Indian fighter, and for twelve years was engaged in almost constant Indian warfare. He also served through the war of 1812. Despite his great services his lands, to which he had never perfected his title, were taken from him; but they were subsequently restored and he was pensioned.

KENTUCKY (*ante*) was not originally a possession of any one of the aboriginal tribes, but a common hunting-ground for them all. The first white explorer was John Finley, who in 1767 went there with a few companions from North Carolina. Two years later Daniel Boone, Finley, and four or five others visited the region, and in 1770 James Knox, with a number of others from Virginia, made extensive surveys for the purpose of locating land-bounty warrants. In 1774 a settlement was made at Harrodsburg by James Harrod. In 1775 Daniel Boone built a fort at Boonesborough. The Indians met these white settlers with a stern and bloody resistance. Daniel Boone, in

1775, made a treaty with the Cherokees, who agreed to sell the region to Richard Henderson and his party. Virginia rightfully claimed the territory as her own, and refused to treat the sale as valid, but finally consented to give the purchaser a title to 200,000 acres at the mouth of Green river. In 1776 Kentucky was organized as a Virginia county, and that state held jurisdiction through the revolutionary war and for several years afterwards. The inhabitants, upon the conclusion of the war, sought to effect a peaceable separation from Virginia, and the latter in 1786 assented to the proposed arrangement, which, however, was not at that time consummated. The citizens were very much prejudiced against the national government on account of a report which gained wide currency that Mr. Jay, while minister to Spain, had ceded to that country the navigation of the Mississippi. Spain, under these circumstances, entered upon an intrigue to induce Kentucky to set up a government independent of the United States, promising special commercial advantages in such a case. The excitement continued for some time, but in 1790 Kentucky was organized as a territory of the United States, and in 1792 admitted to the Union as a state. The white population then numbered 75,000. Indian wars continued to distract the frontiers, and there was great dissatisfaction with the national government for its neglect to afford protection to the inhabitants. There were other grievances, such as a burdensome whisky-tax and the course of the government in relation to the French republic, with which the Kentuckians felt a very strong sympathy. The scheme for independence was partially revived, but the storm soon blew over. The navigation of the Mississippi, however, was a subject of much uneasiness until the retrocession of Louisiana to France and the subsequent purchase of the territory by the United States put an end to all the pending troubles.

The development of the state from this time forward was rapid. It was from the beginning a slave state. In 1860, just before the rebellion, the population numbered 1,155,684, of whom 225,483 were slaves and 10,684 were free colored. Of the whole colored population 44,711 were mulattoes. The total population in 1870 was 1,321,011, of whom 222,210 were free colored, the slaves having been all set free. The number of families was 232,797; of dwellings, 224,969; persons 10 years old and upward who were unable to read, 249,567; unable to write, 332,176. Of these illiterates, 201,077 were white, and 131,050 colored. Of the total population 10 years of age and over, 261,080 were engaged in agriculture; in professional and personal occupations, 84,024, of whom 1,552 were lawyers, 2,414 physicians, and 1,080 clergymen; engaged in mining and mechanical industries, 44,197.

The w. portion of the state is slightly undulatory, with broad level plains here and there. The s.e. part is broken by the Cumberland mountains and their spurs, none of whose summits attain an altitude of more than 3,000 feet. The hills and valleys here are well wooded. West and north of this region lies a gently undulating upland, intersected by rivers flowing through narrow and deep valleys. The soil, in spite of the scarcity of spring water, is of the very finest quality, being in part what is known as the "blue grass region," extending from the Ohio river southward to the Cumberland, through the central portion of the state. In the western part of the state are the "barrens," so-called, which were once thought to be of small value, but which are now more highly appreciated, though not equal to the "blue grass region" in point of fertility. Kentucky is well watered. The Mississippi flows along its western border for 80 m., while along the n. and n.w. border the Ohio has a course of nearly 600 m., and is navigable the whole distance. Only a few small streams empty into the Mississippi from Kentucky. Those which flow into the Ohio are the Big Sandy, which has its sources in West Virginia; the Licking, which has its mouth at Covington, opposite Cincinnati; the Kentucky, which has its sources in the Cumberland mountains, and has a course of 250 m. within the state; Green river, 300 m. in length, and navigable for steamboats 200 m.; the Cumberland, which rises in the valley between the Laurel and Cumberland mountains, flows tortuously through 7 or 8 counties, passes into Tennessee, then returns, flows tortuously in a n.w. course, and empties into the Ohio about 10 m. above the mouth of the Tennessee, and is navigable for 200 m. to Nashville, Tenn.; and the Tennessee, which has a course of 70 m. within the state.

The southern end of the coal measures of Indiana and Illinois extends across the Ohio into Breckinridge co., and continues almost to the mouth of that stream, along the whole w. and n.w. boundary of the state. The coal measures, which occupy the whole eastern part of the state, are a part of the great Appalachian coal-field which over-spreads western Virginia and Pennsylvania. The extensive limestone formations abound in fossils. Hydraulic limestone is found near the falls at Louisville, and is extensively used in the manufacture of cements. The limestone region abounds in caves, some of which are very remarkable. The mammoth cave in Edmonson co., near Green river, is one of the wonders of the world. It has been explored for a distance of more than 10 miles. Low swamps, called "licks," frequented by deer and elk, occur in the limestone region. They were once the resort of the buffalo, and at a very early age, of several species of animals now extinct. One of the most famous of these places is the Big Bone lick not far s. of Cincinnati. Lead ores are found in some places. Salt springs are of frequent occurrence among the sandstone rocks, and sulphur, chalybeate, and saline springs abound. In Clay and Meade counties salt in large quantities is obtained by boring. Iron ores are found in the n.e. corner of the state, where numerous fur-

naces are in operation; also in the slate and limestone regions, and in the s.w. counties bordering on the Tennessee and Cumberland rivers. The climate of the state is somewhat variable, but on the whole very pleasant. The mean annual temperature is about 55°. In winter the mercury occasionally falls to zero and even below, while in summer it rises to 94° or 100°. Winter usually continues from the end of Nov. to the beginning of April, but the snows are light and seldom remain long upon the ground.

In the forests, which are still extensive, are found tulip-trees, ash, oak, elm, hickory, walnut, cherry, sugar-maple, and black and honey locust. The principal fruit-trees are the apple and peach. As an agricultural state Kentucky holds a high rank. The wheat crop of 1879 was estimated at between 8,000,000 and 9,000,000 bushels—a large increase over previous years. The barley crop of 1878 was 300,000 bushels; the corn crop of 1877 was estimated at 59,693,146 bushels; the yield of hemp at 13,752,263 lbs.; of oats, at 6,838,405 bushels; of rye, 1,277,278 bushels; of tobacco, 191,492,148 lbs. In 1878 71,000 acres of peach-orchards produced about 6,000,000 bushels of peaches; 250,000 acres of apple-orchards produce annually over 21,000,000 bushels of apples. The number of sheep in 1878 was 1,123,956; of hogs, 1,600,000; of chickens and other fowls, 9,241,650. In 1878 the number of swarms of bees was 157,370, and the product of honey 4,723,100 lbs. The value of taxable property belonging to white persons in 1878 was \$354,019,676; amount belonging to colored people, \$3,306,837—total, \$357,326,513. The valuation for 1879 was less than this by about \$4,000,000. Number of horses in 1877, 382,000; mules, 122,000; cattle, 550,000; hogs, 820,000. Many millions of young fish have been placed in the waters of the state, with highly encouraging results. The total number of manufacturing establishments in 1870 was 5,390, employing \$29,277,809 of capital, and 30,636 persons, paying \$9,444,524 in wages, and producing goods valued at \$54,625,809. The chief industries or products were: agricultural implements, bagging, blacksmithing, boots and shoes, carpentering and building, carriages and wagons, clothing, flour and grist mill products, furniture, iron products, leather, liquors, lumber, saddlery and harness, tobacco in various forms, and woolen goods. The principal article of manufacture is whisky, the product for 1870 being valued at \$4,532,780. Of direct foreign commerce Kentucky has very little. Louisville and Paducah are the only ports of entry. The principal exports are hemp, flax, tobacco, horses, mules, hogs, cattle, bagging, and rope. The quantity of shipping is small, amounting in 1873 only to 14,000 tons at Louisville, and 2,870 tons at Paducah. Several of the large rivers, chiefly the Kentucky and Green, have been made navigable by dams, locks, etc., and in 1877 a proposition was made to repair the works on the Kentucky, with what results has not been reported. The canal around the falls of the Ohio at Louisville enables large boats to pass at most seasons of the year.

There were in the state in 1879 1430 m. of railroads, valued at more than \$15,644,000. The principal lines were the Louisville and Nashville and branches, the Cincinnati Southern, the Paducah and Elizabethtown, the St. Louis and South-eastern, the Louisville, Cincinnati and Lexington, and the Kentucky Central. In 1873 there were in operation 36 national banks, with a capital of \$8,263,700, and a circulation of \$7,021,900. The number of insurance companies in 1877 was 124, of which 112 were fire and 12 life. The amount of insurance in the state was over \$127,000,000.

The public institutions are: the asylum for the blind at Louisville; the institution for deaf-mutes in Danville; the institution for the feeble-minded at Frankfort; three asylums for the insane; and the state penitentiary at Frankfort. The total number of libraries in 1870 was 5,546, containing 1,909,230 volumes; 4,374 of these libraries were private. The principal libraries are that of the Kentucky university at Lexington and of the Lexington library company; the state library in Frankfort; that of the Danville theological seminary; the public library of Kentucky at Louisville; that of St. Joseph's college at Bardstown; that of Center college in Danville; and that of the Louisville library association. In 1873 the periodicals of the state were 9 daily, 1 tri-weekly, 4 semi-weekly, 80 weekly, and 9 monthly.

The total number of religious organizations in 1870 was 2,969, having 2,696 edifices, and property valued at nearly \$10,000,000. The principal denominations were the Baptist, Christian, Protestant Episcopal, Methodist, Presbyterian, and Roman Catholic. The school system of the state is not as efficiently managed as it should be. Colored children are not allowed to attend the schools provided for the whites. The number of children of school age in the state in 1879 was: whites, 400,000; colored, 50,000. About 200,000 white and 25,000 colored children do not attend the schools. The total receipts from the school fund in 1879 were \$826,426. The state is divided into 7,000 school districts, and the available funds are not sufficient to keep a school in operation in each district three months in the year. In the eight years preceding 1879, 1800 school-houses were built. The state superintendent, however, says the school-buildings in Louisville are alone worth almost as much as all those of the rural districts. Louisville spends upon her schools \$250,000 annually, almost one-third the whole cost of education to the state. The colored schools are so feebly supported that in many cases only incompetent teachers can be employed. Wise men are laboring energetically to improve the common-school system, and with good prospects of success. There were in the state in 1870 42 colleges, having 223 teachers and 5,864 students. The number of academies was 95, with 286 teachers and 6,224 pupils; of private schools 195, with 302 teachers and 7,948 pupils.

The principal collegiate institutions are the Kentucky university at Lexington, embracing the agricultural and mechanical college established by the congressional land grant; the Kentucky military institute at Frankfort; Berea college at Berea; Bethel college at Russellville; Cecilian college (Roman Catholic) at Elizabethtown; Center college (Presbyterian) at Danville; Georgetown college (Baptist) at Georgetown; and St. Mary's college (Roman Catholic) at St. Mary's station. There are also 8 or 10 institutions for the education of women, each under the direction of some Christian sect. Instruction in theology and medicine is afforded also in several different institutions.

Frankfort is the capital of the state. The governor is chosen by the people for four years, and receives a salary of \$5,000. He is ineligible for two consecutive terms. The lieutenant-governor is elected for four years, and presides in the senate for \$8.00 per day. The legislature, consisting of a senate of 38 members and a house of representatives of 100, meets biennially in the odd years. Members are paid \$5.00 per day and mileage. The court of appeals, which has only an appellate jurisdiction, consists of a chief-justice and three judges, each of whom receives an annual salary of \$5,000. The circuit and county judges are elected by the people. The general election occurs on the first Monday in August. A large majority of the people of Kentucky were opposed to the rebellion of 1861, and gov. Magoffin endeavored, but without avail, to keep the state in a neutral position and exclude both the union and the confederate forces from its territory. But the geographical position of the state—to say nothing of other circumstances, rendered this scheme impracticable. Of course the United States claimed the allegiance of the state, and sent its armies there as it found occasion, and a considerable number of Kentucky soldiers volunteered to serve the union cause. The confederates made a desperate effort to set up a state government in the interest of the confederacy, but with small success. Several battles were fought in Kentucky, with the final result of driving the confederate forces out of the state. The majority of the people, though disapproving of the armed rebellion, were yet in strong sympathy with the south in the political matters at issue, and made all the opposition in their power to the emancipation policy of Mr. Lincoln. A large number of soldiers from Kentucky served as volunteers in the confederate army, and when the struggle was over the state made a stout opposition to the reconstructive measures of the government. The electoral votes of Kentucky for president and vice-president of the United States have been cast as follows: 1792, 4 for Washington and Jefferson; 1796, 4 for Jefferson and Burr; 1800, 4 for Jefferson and Burr; 1804, 8 for Jefferson and Clinton; 1808, 7 for Madison and Clinton; 1812, 12 for Madison and Gerry; 1816, 12 for Monroe and Tompkins; 1820, 12 for Monroe and Tompkins; 1824, 14 for Jackson, and 7 each for Calhoun and N. Sanford; 1828, 14 for Jackson and Calhoun; 1832, 15 for Clay and Sargeant; 1836, 15 for Harrison and Granger; 1840, 15 for Harrison and Tyler; 1844, 12 for Clay and Frelinghuysen; 1848, 12 for Taylor and Fillmore; 1852, 12 for Scott and Graham; 1856, 12 for Buchanan and Breckinridge; 1860, 12 for Bell and Everett; 1864, 11 for McClellan and Pendleton; 1868, 11 for Seymour and Blair; 1872, 8 for Hendricks and 4 for B. Gratz Brown for president, and 8 for B. Gratz Brown, 3 for T. E. Bramlette, and 1 for W. B. Macken for vice-president; 1876, 12 for Tilden and Hendricks; 1880, 12 for Hancock and English.

KENTUCKY UNIVERSITY, at Lexington, Fayette co., Ky.; chartered in 1858 and opened at Harrodsburg in 1859 under the auspices of the Disciples, sometimes called Campbellites. In 1865 it was removed to Lexington, and Transylvania university was merged in it. At the same time, the state agricultural and mechanical college, established under the congressional land grant of 1862, and for which the citizens of Lexington had contributed the sum of \$100,000 to purchase a model and experimental farm and to erect suitable buildings, was made a part of the university. The institution embraces a college of arts, the agricultural and mechanical college, the college of the Bible, a commercial college, and a college of law. Each of these colleges has its own faculty and presiding officer, while the general supervision of the whole is devolved upon the regent, who is appointed by the curators. The library contains more than 10,000 vols., and the museum over 100,000 specimens; the cabinet of natural history has more than 40,000 specimens. The lands of the university, embracing Ashland (formerly the estate of Henry Clay) comprises an area of 433 acres; and its endowment, including its real estate, amounts to about \$800,000. Students are employed in industrial occupations and are paid for their labor. In 1878 it had 6 instructors and 145 students; president, Henry H. White, LL.D.

KENYON, JOHN, 1783-1856; b. in Jamaica, W. I.; d. in the isle of Wight. He published *Rhymed Plea for Tolerance* (1833) and *Poems* (1838). He was best known as the patron and friend of literary men, among whom at his death he distributed a large part of his fortune.

KENYON, LLOYD, Lord, 1733-1802; admitted to the bar 1756, attorney-general 1782-84, master of the rolls 1784-88. In 1788 he succeeded lord Mansfield as lord chief-justice of the court of king's bench, with the title of lord Kenyon, baron of Eredington.

KENYON COLLEGE, at Gambier, Knox co., Ohio, was founded in 1824 by the efforts of bishop Philander Chase of the Protestant Episcopal church, who collected in England a large portion of the funds for its endowment. The village is named for lord Gambier, one of the largest contributors to the college. Its endowment amounts to \$230,000; its

annual income to \$22,000. It has 14 buildings for various uses, a library of 22,000 volumes, and good cabinets and art collections. Number of professors in 1880, 7; of other instructors, 2; of students, 120, one-half of whom are in the preparatory department; of alumni, 606. The theological department at the same date had 4 professors, 8 students, and 174 alumni. President, G. T. Bedell, D.D.

KE'OKUK, a co. in the s.e. part of Iowa, intersected by the Skunk river, the n. and s. forks of which unite within its limits; and the s. fork of the English river drains a part of the county; 576 sq.m.; pop. '80, 21,259. The surface is undulating, the soil fertile. Wheat, corn, oats, hay, cattle, and pork are the chief products. Bituminous coal is found in some places. The Oskaloosa branch of the Chicago, Rock Island and Pacific railroad passes through the county. Valuation of real and personal property, \$5,648,922. Capital, Sigourney.

KE'OKUK (*ante*), a city in Iowa, one of the capitals of Lee co; pop. '80, 12,117. The largest steamers ascend the Mississippi to this point. The city is connected with Warsaw, Ill., by a railroad bridge across the river, which is here a mile wide, and flows between bluffs nearly 150 ft. high. The St. Louis, Keokuk and North-western railroad has its northern, and the Keokuk and Des Moines railroad its south-eastern, terminus here. The latter connects at this point with the Toledo, Peoria and Warsaw railroad, and with branches of the Wabash and Chicago, and Burlington and Quincy railroads. The Mississippi Valley and Western railroad extends from this city to Quincy, and the Keokuk and St. Paul railroad to Burlington. The city has 17 churches, a high school, a commercial college, a public library of 7,000 volumes, 2 national banks, a savings bank, 2 daily and 3 weekly newspapers, breweries, foundries with machine-shops, flour mills, and manufactures of soap, candles, sash, doors, tobacco, etc. The place is also the terminus of a new ship-canal, $7\frac{1}{2}$ m. long and 300 ft. wide.

KEPPEL, **AUGUSTUS**, Viscount, 1725-86; son of William, second earl of Albemarle. Entering the navy in 1740 he accompanied Anson in his voyage round the world. For several years he made successful expeditions. In 1761, with a small squadron, he captured Belle Isle, was created the following year rear-admiral of the blue, and in 1778 admiral of the red. In an engagement with the French off Ushant, July, 1778, he was censured for neglect of duty by Sir Hugh Palliser, tried by court-martial, but honorably acquitted. In 1782 he was raised to the peerage as viscount Keppel, baron Eldon. Twice he was first lord of the admiralty.

KEPPEL, **GEORGE THOMAS**, b. 1779; son of the earl of Albemarle; entered the British army, and was at the battle of Waterloo. He was secretary to Lord John Russell, and in 1832 and 1847 was elected to parliament. He published *Journey across the Balkan* and *Memoirs of the Marquess of Rockingham*.

KEPPEL, **SIR HENRY**, b. 1809; younger son of the earl of Albemarle and brother of George Thomas; rose from lieutenant in the British navy in 1829 to the rank of admiral in 1869. He was early stationed in India, the Mediterranean, and at the Cape of Good Hope; on the coast of China he had command of the *Dido*, 1841-45; at Sebastopol, in the Crimean war, had command of the naval forces; in 1857-58 commanded the naval forces against China, destroying a Chinese war-fleet, for which he was made K.C.B.; in 1867-69 was vice-admiral and commander-in-chief in China and Japan. He published *Expedition to Borneo*, 2 vols., and *Visit to the Indian Archipelago*.

KERATINE, or **ELASTINE**, one of the nitrogenous non-crystalline bodies which are allied to the proteids. See **PROTEINE** and **PROTEINE BODIES**. The other members of this group, as now-known, are mucine, chondrine, glutine, elastine, and nucleine. Keratine, though somewhat resembling the proteids in composition, differs from them widely in other properties. Hair, epidermis, nails, feathers, and horn are composed principally of keratine. Heated with water in a digester at 302° F., keratine is partially dissolved, with evolution of sulphureted hydrogen. Prolonged boiling with alkalies and acids will dissolve keratine. The alkaline solutions when treated with acids evolve sulphureted hydrogen, the sulphur constituent being loosely united to the other elements. The exact chemical composition of keratine has not been determined, but lies somewhere between the following numbers: Oxygen, 20.7 to 25; hydrogen, 6.4 to 7; nitrogen, 16.2 to 17.7; carbon, from 50.3 to 52.5; sulphur, .7 to 5 per cent. According to Lear, the composition of human hair, exclusive of ash, is as follows: Carbon, 50.42; hydrogen, 6.34; nitrogen, 17.33; oxygen, 20.91; sulphur, 5.

KÉRATRY, **AUGUSTE HILARION DE**, 1769-1859; b. Rennes, France; was a member of the chamber of deputies in 1818 and 1827, and by his liberal measures after the restoration of the Bourbons did much to promote the revolution of 1830, resulting in the downfall of Charles IX. and accession of Louis Philippe. He was made a peer of France in 1837 by Louis Philippe. In 1848 he was again a member of the legislature. After the *coup d'état* of Napoleon, to whom he was strongly opposed, he withdrew from public life. His principal published works are *Inductions morales et philosophiques*, and several poems and romances.

KÉRATRY, **ÉMILE DE**, Comte, b. Paris, 1832, of a noble family in Bretagne; son of Auguste Hilarion, who was a moderate participant in every revolution in France from 1789 to 1851. Émile entered the army, served in Africa, the Crimea, and Mexico.

In 1835, returning to Paris, he became one of the editors of the *Revue Contemporaine*, in which his articles on the French occupation and campaigns of Mexico threw such light upon them as to produce a lively sensation in France. Afterwards editor of the *Revue Moderne*, he renewed attention to the same subject. The articles brought out disdainful allusions to their author by Rouher from the tribune; to which Kératry replied by a published letter, announcing that if the government failed to investigate the Mexican misdoings he would make public complete revelations of them. In 1869, against the opposition of the government and the clergy, he was elected deputy to the *corps législatif*. There he became an active member of the opposition, which denounced the prorogation of the legislature by Napoleon III. During the session of 1870 Kératry was active in pressing measures for the reorganization of the army, the suppression of the *garde mobile*, the creation of a militia, and the imposition of the condition of suffrage that each elector should know how to read and write. He demanded the restitution to the national archives of papers which Napoleon had caused to be abstracted; and became an advocate of the restoration of rights and citizenship to the Orleans princes. On the opening of diplomatic difficulties with Prussia in July, 1870, Kératry was hot for war. When, Sept. 4, 1870, the empire crumbled under defeat and the public contempt, Kératry was made prefect of police by the new committee of defense. He ordered the removal of all Germans from Paris and its environs, sent the Orleans prince back to England, and made quick changes in the police department of Paris to deprive its organization of a political or partisan character. He soon resigned this position to take a diplomatic mission to Spain; leaving Paris in a balloon. The mission was futile. On his return Gambetta made him commander-in-chief of the forces organizing in the five departments of Bretagne; but, disagreeing with Gambetta, he resigned Nov. 27. In Mar., 1871, Thiers appointed him prefect of the department of the *Haute-Garonne*, where he took prompt and harsh measures to signalize his detestation of ultra-democratic opinions. In Nov., made prefect of the *Bouches-du-Rhone*, he exhibited such lack of tact, and hostility to the republican party, that his resignation was willingly accepted in Aug., 1872; and he was made an officer of the legion of honor. He then became one of the editors of the journal, *Le Soir*. He is the author of several comedies and graver works, as follows: *A bon chat bon rat*; *Toile de Pénélope*; *La Guerre des Blasons*; *Vie de Club*; *Contre-Guerilla*; the *Créance Jecker*; *L'Elevation et la Chute de Maximilien*; and *Le Quatre Septembre*: the last is a curious exposition of the police system under the empire.

KERBELA, or MESHED-HOSSEIN, a large city of Asiatic Turkey, pashalic of Bagdad; pop. 20,000. The wall surrounding it is 2 m. in circumference. The city has five gates, a large bazaar, and several caravansaries. Its ancient name was *Vologesia*. It is a great resort for Mohammedan pilgrims, as the spot where Hossein, the son of Ali, by Fatima, the daughter of the prophet, having been slain in the vicinity, was buried. An ancient canal connects the town with the Euphrates. Many Persians reside here.

KERFOOT, JOHN BARRETT, D.D., LL.D., b. in Dublin, Ireland, 1816; educated at the Flushing institute and St. Paul's college, N. Y., graduating in 1834. He was ordained deacon in 1837, priest in 1840, and bishop of Pittsburg in 1866. He received the degree of D.D. from Columbia college in 1850 and also in 1865 from Trinity college, Hartford, and the degree of LL.D. from the university of Cambridge, England, in 1867. From 1842 to 1864 he was president of St. James's college, Md.; and of Trinity college, Hartford, Conn., 1864-66.

KERLÉRIC, LOUIS BILLOUART DE, 1704-70; b. at Quimper, France; entered the marine corps in his boyhood, and distinguished himself in many campaigns, especially on board the *Neptune* in 1746 and 1747. In 1752 he was made governor of Louisiana, and remained in that position 10 years. On his return to France in 1764 he was accused of peculation and cruelty and committed to the Bastille. In 1769 he was sentenced to banishment, but, while he was preparing to submit new exculpatory evidence to the tribunal, he died. He is believed to have written memoirs of Louisiana; but if so they have been lost.

KER'MESSE, church festivals or out-door *fêtes* in Europe, particularly in Belgium and Holland, where they are the scenes of all kinds of amusements like those of any other kind of village *fête* or fair. The word is derived from *kerk*, the Dutch for church, and *messe*, the French for mass. The kermesse probably originated in the tact of the priests or pastors in promoting the enjoyment of their people and making them minister to the popularity and support of the church, as church fairs do now. Tenier and other Flemish artists have pictures that represent the old-time scenes of the kermesse. Dancing, comic processions, and many of the scenes of the carnival are among the amusements of these festivals.

KERN, a large co. in the s. central part of California, drained partly by Kern river. Tulare lake lies upon its n. border, while the Coast range of mountains lies along the s. w. boundary; pop. '80, 5,601. Between this Coast range and the Sierra Nevada is an extensive valley or plain. Several high peaks of the Sierra Nevada are within the county. The Tejon pass, in the s. part, is more than 5,000 ft. above the sea. The highlands produce good timber, including pine, fir, and oak. The valleys are well adapted to

pasturage. Gold, salt, sulphur, and petroleum are found in some places. Gold, wool, and barley are the chief products. The Southern Pacific railroad passes through the county. Valuation of real and personal property, \$3,168,360. Capital, Bakersfield.

KERNAN, FRANCIS, b. N. Y., 1816, studied at Georgetown, D.C., and, immediately after graduating, adopted the profession of law, commencing practice at Utica, N. Y., in 1839. He gained a high reputation as a lawyer, reporting the decisions of the court of appeals for three years. Having interested himself strongly in politics as a democrat, he was elected to congress by his party, and in 1872 ran for governor of his state, but was defeated by John A. Dix. In 1875 he became U. S. senator from the state of New York, his term expiring in 1881. Mr. Kernan was a member of the electoral commission in 1877.

KERN LAKE, in Kern co., Cal., flows at high water into Kern river, through a channel which at other times is a slough. The lake abounds in fish, and in the tule around it are found game-birds of all kinds, and beaver, otter, raccoons, and other game animals. Its size depends upon the amount of rain.

KERN RIVER, and KERN RIVER SLOUGH. The *river* has its sources in Tulare co., Cal., whence it flows s. and s.w. for a considerable distance, and then divides into two branches, one of which flows into Tulare lake, the other into the tule region around lakes Kern and Buena Vista. Near its sources it abounds in trout. The *slough* is the channel by which at high water Tulare lake discharges its surplus waters n. to San Joaquin river. The lake has no connection with the ocean except at high water.

KEROSENE (Gr. *keros*, wax), the name of a mixture of certain fluid hydrocarbons used for illumination. It has been prepared from bituminous coal and shales, asphaltums and wood, and from rosin, fish-oil, and candle tar; but is now more economically obtained from petroleum. The density of the mixture called kerosene should be about .810 or 43° Baumé, and should not yield inflammable vapors below a temperature of 110° or 120° F. It is, therefore, not explosive under ordinary circumstances, and a lighted match may be plunged into it without igniting it. If, however, it be burned in a metal lamp, and this be heated to 115° or 120° F., gases might be formed in the upper part of the lamp which, on taking off the cap or burner, might cause an explosion. But there are many lighter hydrocarbons in petroleum, and much of the kerosene in market contains them in greater or less proportion. They are cheaper than the heavier oils contained in the kerosene, and there is a temptation among dealers to mix them with this article after it is bought of the manufacturer or wholesale dealer. The extraction of fluid hydrocarbons from bituminous substances, as shales, coals, and asphaltums, commenced in the latter part of the 17th century. In 1694 a patent was granted in England to Martin Eele, Thomas Hancock, and William Portlock for making pitch, tar, and oil out of shales. In 1716 a process was patented by the Bettons of Shrewsbury for making oil from shales overlying the coal beds. They reduced the shales to powder by grinding, and employed the process of destructive distillation. The oil so extracted was used only for medicine, and called British oil. It was more than a century after this before much information was obtained in regard to the distillation of these oils, when baron Reichenbach investigated their properties, and called a mixture of several of the hydrocarbons in purified coal oils eupione. He discovered a great many new substances, and published an account of them in three different German scientific journals. Many patents were taken out by French and other inventors for methods of distilling these oils from coal and shales, and many conflicting claims to inventions and varying processes have arisen, which need not be discussed here. The discovery of petroleum in large quantities has practically put a stop to the manufacture of oils from shales or coal, and the name kerosene is now scarcely known to the trade, the term petroleum having taken its place either as crude or refined petroleum. See PETROLEUM and PETROLEUM PRODUCTS; also NAPHTHA, *ante*.

KEROWLEE, a native state of Hindustan, 1878 sq.m.; pop. 187,000. On account of the disturbed condition of the territory during the last few years, the reigning prince applied to the British government for aid. This was granted, and order was restored. On the death of the rajah, Nursing Pal, in 1852, the British government recognized his adopted son as his successor, and arranged for the administration of affairs during the minority of the prince. The total revenue of the country is said to be £50,690.

KERR, a co. in the s.w. central part of Texas; drained by the head-waters of Guadalupe river; about 850 sq.m.; pop. '70, 1042. The surface is hilly and much of it yet in forest. The soil produces excellent pasturage for great numbers of cattle. Valuation of real and personal property, \$203,697. Capital, Kerrville.

KERR, MICHAEL C., 1827-76; b. Penn. Having studied law at Louisville university, he entered the practice at New Albany, Ind., and in 1856 was elected to the state assembly. In 1862 he was reporter of the state supreme court. In 1866 he was elected to congress, where he was continued in service by successive re-elections till 1876. In 1875 he was elected speaker of the house by the democratic party, but ill health compelled him to resign, and he died in the following year.

KERR, ORPHEUS C. See NEWELL, ROBERT H.

KERSHAW, a co. in n. South Carolina; 700 sq.m.; pop. '80, 21,538. It is traversed by the Wateree river, and by the Camden branch of the South Carolina railroad. Auriferous quartz is found here. The surface is diversified, much of it being woodland. The chief productions are cotton and corn.

KERSHAW, J. B., b. S. C. In the war of the rebellion he commanded a regiment of South Carolina volunteers, raised principally by himself, and was engaged in the first battle of Bull Run, July, 1861. Through the Virginia campaign of 1862 he commanded a brigade which went into action at the second battle of Bull Run; he engaged in the capture of Harper's Ferry, Sept. 15, 1862, and two days later in the battle of Antietam. His command held the strong position of Marye's Heights at the battle of Fredericksburg, so disastrous to the union forces, and was prominent at Chancellorsville and at Gettysburg. With Longstreet's corps he was transferred to the west, and was in the battle of Chickamauga and the siege of Knoxville. As maj.gen. in 1864 he returned to Virginia, and commanded a division in the campaign of Lee's army, which ended at Appomattox Court-house. Since the war he has been one of the political leaders in his native state.

KESHUB CHUNDER SEU. See **SEU, KESHUB CHUNDER.**

KETCHUM, WILLIAM SCOTT, 1813-71; b. Conn.; graduated at West Point in 1834, and served in Florida, Texas, on the plains, in Kansas, Utah, and California. He was brevetted brig.gen. and maj.gen. for meritorious services during the rebellion and in the war department. Retired in 1870, and died by poison in Baltimore in the following year.

KETONES, or ACETONES, organic substances or bodies which in general terms may be defined as composed of acid and alcohol radicals. See **RADICAL.** Chancel proposed the hypothesis that they are formed on a nuclear molecule of carbonic oxide, or carbonyl, CO , and Wanklyn's researches have demonstrated its correctness. Dimethyl ketone, or *acetone*, may be taken as the type. It is composed of carbonic oxide, as the acid radical, and two monatomic alcohol radicals, and in general it may be said that ketones contain the group CO associated with two monatomic alcohol radicals, which may be the same or different. Thus, ethyl-methyl ketone is $\text{CO}, \text{CH}_3, \text{C}_2\text{H}_5$ or $\text{C}_4\text{H}_8\text{O}$. The mode of formation of the ketone may be explained by regarding it as derived from an aldehyde by the substitution of an additional alcohol radical in place of the hydrogen atom attached to the group CO . Thus, acetic aldehyde $\text{C}_2\text{H}_4\text{O}$, which may be written $\text{CH}_3, \text{CO}, \text{H}$, by substitution of the radical CH_3 for the single atom H , becomes $\text{CH}_3, \text{CO}, \text{CH}_3$, or $\text{CO}, 2\text{CH}_3$, as it is more commonly written, or $\text{CO}(\text{CH}_3)_2$, or $\text{C}_3\text{H}_6\text{O}$. The only ketones which have been carefully studied are those which contain the alcohol radicals $\text{C}_n\text{H}_{2n+1}$; and which are analogous to the aldehydes $\text{C}_n\text{H}_{2n}\text{O}$, and the fatty acids $\text{C}_n\text{H}_{2n}\text{O}_2$. The ketones of this group, containing two equivalents of the same alcohol radical, are produced: 1. By the action of carbonic oxide on ethylde of sodium and its homologues; 2. By the action of zinc-methyl and its homologues on the acid chlorides; 3. By the oxidation of the secondary alcohols; 4. By the dry distillation of calcium salts of the fatty acids. The ketones formed in this manner from the successive members of the fatty acid series, of which acetic acid is one, differ from one another by twice the radical CH_2 ; thus, the salt containing

Acetic acid...	$\text{C}_2\text{H}_4\text{O}_2$	yields	Acetone	$\text{C}_3\text{H}_6\text{O}$
Propionic acid.....	$\text{C}_3\text{H}_6\text{O}_2$	"	Propione.....	$\text{C}_5\text{H}_{10}\text{O}$
Butyric acid	$\text{C}_4\text{H}_8\text{O}_2$	"	Butyrone.....	$\text{C}_7\text{H}_{14}\text{O}$
Valeric acid.....	$\text{C}_5\text{H}_{10}\text{O}_2$	"	Valérone.....	$\text{C}_9\text{H}_{18}\text{O}$

There are intermediate ketones obtained from different alcohol radicals. Thus ethyl-methyl ketone $\text{C}_4\text{H}_8\text{O}$ is intermediate between acetone and propione. The ketones which contain two different alcohol radicals are obtained by the second process enumerated above, that is, by the action of carbonic oxide upon ethylde of sodium, or by distilling a mixture of calcium salts of two different fatty acids. Ketones in general are also formed by the gradual oxidation of the lactic acid series, and by the dry distillation of wood, sugar, and other carbon compounds.

Every ketone is isomeric with an aldehyde belonging to the same series; thus, acetone is isomeric with propionic aldehyde $\text{C}_3\text{H}_6\text{O}$, and formic acetone is identical with formic aldehyde, COH_2 . These bodies are generally volatile liquids, insoluble in water. Those in which the group CO is associated with a methyl group resemble the aldehydes in forming crystalline compounds with alkaline bisulphites, from which the ketone may be obtained by distillation with an alkali, which abstracts the second equivalent of sulphurous acid. In regard to acetone, the typical and most common of the ketones, it is best prepared by the dry distillation of acetate of calcium or acetate of lead. The crude distillate is then saturated with carbonate of potash and rectified in a water bath from chloride of calcium. When pure, acetone is a colorless limpid liquid having a peculiar, agreeable odor and a biting taste somewhat like that of peppermint. Density, 0.792; boiling point, 131.9°F . It is inflammable, burning with a bright flame.

KETSKEMET, a t. of Hungary, co. of Pesth, 50 m. s.e. of Buda; pop. 41,539. It has various institutions of learning, including a normal school and a school of design; also churches of various denominations; gymnasia, an orphan asylum, and a hospital.

The principal industries are the manufacture of wine, soap, the tanning of leather, and breeding live-stock. The town is irregularly built in the midst of a level country.

KET'S REBELLION, an outbreak which took place in England, in 1549, under the leadership of William Ket, a tanner, living in Wymondham, Norfolk. He is said to have had 20,000 followers; but the rising was suppressed by the earl of Warwick, after an engagement in which more than 2,000 of the insurgents were killed. The leader, Ket, with others, suffered death on the gallows.

KETTELER, WILHELM EMANUEL VON, 1811-77; b. Westphalia; studied law and was attached to the civil service of Münster, but entered upon the study of theology, and was ordained a priest in 1844. In 1850 he was made bishop of Metz, and became a prominent leader in the ultramontane party.

KETTLE-DRUM, as applied to a social gathering, originated in the British army in India. It sometimes happened in the emergencies of camp life that in an entertainment given by officers and their wives there was a lack of requisite furniture, and the heads of kettle-drums were made to serve in place of tables to hold the cups of tea. So by metonymy the article used gave name to the occasion on which it was used. The name came to mean an informal party, and specifically an afternoon party in which elaborate dress and costly viands gave place to every-day attire for ladies and business suits for gentlemen, with very simple side-table refreshments. This kind of visit was introduced into this country at a time of general financial depression by some who wished to meet their friends socially, yet could not, as before, dress expensively and entertain sumptuously.

KEWA'NEE, a village in Henry co., Ill.; on the Chicago, Burlington, and Quincy railroad; 132 miles from Chicago; pop. 2,000. There are mines of bituminous coal in the neighborhood, and the place has several thriving manufactories.

KEWAU'NEE, a village in Wisconsin, at the mouth of the river of the same name, and about 27 miles e. of the town of Green Bay; pop. '70, 1681. It is the center of a considerable lumber industry.

KEWEE'NAW, a co. in n. Michigan, consisting of the large tract of country that begins at the Montreal river and projects into lake Superior; called Keweenaw point, from an Indian word signifying, *the canoe is carried back*; also of the island of Isle Royal, with a few smaller islands; area, 540 sq. m.; pop. '70, 4,205, of whom 2,059 were Americans, and 5 were Indians; in '74, 5,415. It is the center of the copper-mining interest. This mining district was discovered by Jesuit missionaries in 1659; in 1845 was brought into public notice through operations on the north shore; and, with the adjacent counties, is known as the "copper-region." The soil is unproductive, except in mineral wealth, and the yield from the copper mines in 1870 was valued at \$823,477. There are 6 mines, 6 quartz-mills, and a manufactory of explosive compounds. Co. seat, Eagle River. Like other portions of the state which are washed by lake Superior, Keweenaw has but two seasons—summer and winter; and the beaver, the partridge, and the owl attain their perfection in fur and plumage. The inhabitants engage to some extent in fishing, taking the fish with trap-nets, which are made in Massachusetts. The fish are salted and sent to the territories. Lake Superior white-fish, famous for their size, are packed in ice and sent south.

KEW-KIANG', or **KIW-KIANG** (Chinese, Nine Rivers), a considerable town of China, in Kiang-si; 227 m. s.w. of Nanking; at the northern boundary of Poyang lake, on the banks of the Yangtze river; the most convenient outlet for the green-tea district. This province is notable for the Taeping rebellion, which had its rise in an outbreak in the province of Kiang-si in 1850. It assumed such formidable proportions, as to obstruct all efforts for the extension of navigation and the establishment of commercial relations with foreign countries; until, in 1861, after a treaty obtained by lord Elgin, an expedition, with a squadron under command of sir James Hope, determining to open two of the principal cities—Hukon and Kew-Kiang—to foreign trade, took possession of those cities and installed consuls in them, and left a gun-boat in each port to protect British subjects. Thus was opened to the world the great center of the tea traffic. Ning Chow congou tea is produced in the n.w. of the province of Kiang-si; but the finest of this kind is grown at Wuning, a place s.w. of the city of Kew-Kiang, the latter city being the chief market for teas of this kind. The population is estimated at over 1,000,000. Severe famines and inundations from the overflow of the Yangtze in successive years drove many fugitives to the town for shelter, and the missionary chapels were at the mercy of Mohammedan fanatics until they were overcome by the aid of vessels-of-war. In the rear of the British settlement, which fronts the river, are the remains of the Chinese town and the monument of a general who fell during the siege, which was erected to his memory by the emperor. This port controls the carrying-trade on the lake and the river; and the shipping in 1871 comprised 320 American and 92 English steamers; 65 English and 23 American sailing-vessels. The port of Kew-Kiang is subsidiary to Shanghai, and at certain seasons of the year navigation is impeded by low water and sand-bars, necessitating the transfer of the cargoes to lighters at Hukon, 16 miles below Kew-Kiang, at the mouth of the lake. The value of the exportations from Kew-Kiang has amounted to £25,000,000 in one year.

KEY, FRANCIS SCOTT, 1779-1843; b. Md.; completed the regular course of study at St. John's college, Annapolis, and then turned his attention to the study of law, which he subsequently adopted as a profession. He commenced practice in Frederick City, Md., where he attained eminence as a jurist, and held the office of district attorney of the district of Columbia for several consecutive terms. He was intimately associated with chief-justice Taney, having married his sister. Detained against his will, he was an indignant spectator from the deck of a British man-of-war of the memorable attack on fort McHenry which inspired that enduring example of heroic verse, *The Star Spangled Banner*. On this composition rests his literary fame, though a volume of his poems was published in 1857. In 1874 James Lick, of San Francisco, subscribed \$150,000 in aid of a fund to be used in the erection of a monument in that city, to his memory.

KEY, THOMAS HEWITT, 1799-1875; b. England. Having graduated in 1821 from Trinity college, Cambridge, and studied medicine at Grey's hospital, London, he was called in 1824 to fill the chair of mathematics in the university of Virginia, an institution then in its infancy. Ill health compelled his return to his native land in 1827. In 1828, when the university of London was founded, he accepted the professorship of Latin, and held it until 1841. He filled other professorships with honor, and at the time of his death the preparatory school connected with that university was under his especial control. As a philologist, he produced numerous pamphlets containing essays and reviews, and a controversial argument on Donaldson's Varronianus. The *Penny Cyclopaedia* and the *Journal of Education* advantageously employed his pen, and he published a Latin grammar (1843-46); *Philological Essays* (1868); and *Language, its Origin and Development* (1874). His best energies were given to the construction of a Latin-English lexicon, which is considered his most valuable production.

KEY, THOMAS MARSHALL, 1818-69; b. Ky.; graduated at Yale college, 1838, and devoted himself to the study of law. Removing to Cincinnati, Ohio, he was admitted to the bar of that state, and soon distinguished himself as an able and eloquent lawyer. He was a member of the state senate during several sessions. He is chiefly to be remembered for having been the author of the first bill enacted by congress for the emancipation of slaves and that for the emancipation of the slaves in the district of Columbia. During the rebellion he was on the staff of gen. McClellan.

KEY-BOARD. See **FINGER-BOARD**, *ante*.

KEYES, ERASMUS DARWIN, b. Mass., 1811; graduated at West Point in 1832, and from 1844 to 1849 was instructor of artillery and cavalry in that institution. In 1856-58 he distinguished himself in the movements against the Puget sound and Snake river (Wash. terr.) Indians. He was active during the war of the rebellion, commanding a brigade at the first battle of Bull Run, and the 4th corps of the army of the Potomac in 1862. He was made maj.gen. of volunteers for gallant conduct during the Peninsula campaign, and brev. brig.gen. U. S. A., after Fair Oaks. Resigned from the army May 6, 1864.

KEY-NOTE. See **KEY**, *ante*.

KEYPORT, a t. in Monmouth co., N. J., on Raritan bay, 23 m. from New York; terminus of the Freehold and New York railroad; pop. 2,613. It has a considerable trade and some ship-building, and is largely interested in the oyster business.

KEYS, HOUSE OF. See **MAN, ISLE OF**, *ante*.

KEYS, POWER OF THE (*ante*). according to the general Protestant doctrine, is simply declarative. When Christ said to Peter, to all the apostles, and to his disciples generally, "Whosoever sins ye remit, they are remitted unto them; and whosoever sins ye retain, they are retained," he assumed that they would act in his name, and according to the conditions which he prescribed. He had made known to them the terms on which sins were to be remitted, and when he sent them forth it was to preach "repentance and remission of sins in his name." Therefore their power to remit sins was a power to declare that they who repented and believed had their sins forgiven as the act of God, through Christ. This is what Peter did declare on the day of Pentecost, when, in answer to the anxious multitude, he said, "Repent, and be baptized, every one of you, in the name of Jesus Christ, for the remission of sins, and ye shall receive the gift of the Holy Ghost." This was the way in which he "opened the kingdom of heaven" to Jews. When sent to Cornelius he said, "To Jesus bear all the prophets witness that, through his name, whosoever believeth in him shall receive remission of sins." This was the way in which he "opened the kingdom of heaven" to Gentiles. Even to Simon Magus he said, "Repent of thy wickedness, and pray God if, perhaps, the thought of thy heart may be forgiven thee." All that is recorded of Peter's preaching and action shows that he professed to exercise only declarative power in the name of Christ. Paul and the rest of the apostles pursued a similar course. This being the way in which they exercised the power of the keys, all different or higher claims, up to the pope's assertion of power over all the church and over two worlds, are, in the judgment of Protestants, assumptions, contrary to Scripture, disproved by history, and reached by successive stages through many centuries.

KEY WEST, the name of an island 7 m. long, 1 to 2 m. wide, which forms a part of Monroe co., Florida; pop. '74, about 7,000. A lighthouse on the s.w. point and another on the n.w. show fixed lights, and are, respectively, 72 and 40 ft. above the water. The soil of the island, whose elevation above the sea is about 11 ft., is composed of coral, reduced to a powder by the action of the elements and otherwise, and a small proportion of decayed vegetable matter. There are no springs, the rainfall or artificial means being the only resource of the inhabitants for the supply of water. Yet there is a luxuriant growth of the wild chapparal, of cactus, and other native vegetation, while tropical trees and flowers flourish, and cocoa-nuts, bananas, guavas, pineapples, and oranges are cultivated freely. The Florida reef is a peculiarly dangerous spot to navigators, and some 250 men are employed as wreckers, who produce a revenue to the island of about \$250,000 a year. There are charming drives on the island, and the fishing and boating are excellent. Fort Taylor, the chief defense of the port, built on an artificial island in the harbor, mounts about 200 guns.

KEY WEST (*ante*) is a city of considerable importance, and has increased its population (stated formerly at 5,000) within a few years, through extensive immigration from the Bahamas and the West Indies. It contains 7 churches, a number of public and private schools, a convent, and a hotel. It is, next to Jacksonville, the largest city in Florida. The manufacture of cigars is a leading industry, employing some 800 hands, chiefly Cubans, who make about 25,000,000 cigars annually. Key West is reached by the Mallory line of steamers for New Orleans, and the New York and Galveston line, both sending vessels from New York every Saturday. There is also a semi-monthly line from Baltimore. It is reached by rail from New York, connecting with a steamer at Cedar Keys.

KHABOUR, a river in Asiatic Turkey, one of the tributaries of the Euphrates, into which it empties at Kerkesich, after a course of nearly 200 miles. It was on this river that the captive Israelites were settled, and it is mentioned in the cuneiform inscriptions.

KHALDUN', **IBN**, or **WALY EDDIN ABU ZEID AEDALRAHMAN**, 1332-1406; b. at Tunis, Africa. After studying for some years in Granada he entered the service of the sovereign of Tunis, and subsequently that of the sultan of Fez. In 1382 he made the pilgrimage to Mecca, was afterwards employed as an instructor in several of the colleges of Cairo, Egypt, where he was appointed chief *cadi* in 1384 and again in 1400. In the latter year or near that time, he was sent ambassador to Damascus. He died in Cairo. Among his works was a *History of the Arabs, the Persians, the Berbers, and the Nations among whom they have lived*—now an authority in oriental annals.

KHALED, surnamed the "Sword of God," 582-642; b. Arabia; a distinguished Moslem warrior of the 7th century. He fought against Mohammed in the battle of Ohud in 623; was converted to Islam in 629, and in the same year saved the Moslem army at the battle of Muta, earning for himself the surname above mentioned. He afterwards invaded Persia, seized Bozrah, laid siege to Damascus, defeated the Roman generals in the time of the emperor Heraclius, and captured Aleppo in 638. Died at Emesa.

KHALKAS', the northern part of Mongolia, on the Siberian frontier. It belongs to the high-priest of Buddha, who, with the Chinese governor of the province, resides in the capital, Urga or Oergo. The Khalkas Mongols came under the dominion of China in 1688, when they voluntarily submitted, to avoid total destruction at the hands of the Kalmucks, with whom they were carrying on an unsuccessful war. Khalkas was the birthplace of Genghis Khan, who was originally the khan or chief of a horde of shepherds numbering about 40,000 families.

KHANDESH'. See **CANDEISH**, *ante*.

KHANG-HI, or **KANG-HI**, 1654-1722; second emperor of China under the present Manchu dynasty; succeeded his father, Chun-Chi, as emperor in 1662, under the regency of four mandarins; assumed full power in 1667, when he put one of the regents to death. He studied the Copernican system of astronomy under one of the Jesuit fathers, and caused it to be officially taught in the empire in 1667. He suppressed the revolt led by the prince of Yunnan in 1673, and afterwards annexed Kwang-Tung, Fo-Kien, and Formosa to the empire. In 1689 he concluded a treaty of peace with Russia, annexed Tibet about 1700, and in 1717 authorized the persecution of Christians. He ranks as the greatest of Chinese sovereigns, and through the Jesuit missionaries was well known in Europe. He promoted the publication of important works on the history, language, and literature of the nation; and in 1708 employed the Jesuits to make a topographical survey, which is still an authority in Chinese geography.

KHAZARS, or **CHAZARS**, one of the tribes of the Finnic or Magyar stock, settled near the mouth of the Volga, in the Caucasus. They had their own sovereigns, and were an independent and powerful tribe. In the 8th c. they became conspicuous by their conversion to Judaism.

KHE'DIVE (*ante*), one of the titles of the ruler of Egypt, a tributary prince of the sublime porte, who, since 1867, has exercised absolute power within his own dominions. The first khedive was Ismail, sovereign of Nubia, Soudan, Kordofan, and Darfour, son of Ibrahim Pasha (eldest son of Mohammed Ali Pasha, founder of the dynasty), was

born in 1830, and succeeded his uncle, Saïd Pasha, in 1863, as fourth viceroy of Egypt. He traveled through the capitals of Europe, informing himself concerning their manners and customs, and these he introduced into his own dominions on his return. He fell under the displeasure of the sultan, through the jealous fears of the latter regarding European ascendancy in Egypt, but succeeded in obtaining from him important concessions. By a firman dated May 21, 1866, he gained the right of the succession in the direct masculine line in his branch; by that of June 8, 1867, the title *khedive*, or sovereign, was granted him; and by the firman of Sept. 29, 1872, he obtained the right to increase his army and navy at his pleasure, and to borrow money. Finally, he was conceded, in 1873, the right to conclude treaties of commerce, with the full autonomy of the administration of the country. Yet, despite all this, the sultan retained in his hands the disposition of the government in Egypt, since, in April, 1879, he proposed to the western powers to depose Ismaïl in favor of his uncle, Halim Pasha, the rightful heir. This proposition was not received favorably, though repeated in June, and the sultan was finally induced to issue a firman deposing Ismaïl in favor of his son, prince Mohammed Tefvik. This was on June 26, and the firman abolished that of 1873, and deprived the khedive of the power to conclude treaties with foreign powers, and to maintain a standing army. Ismaïl Pasha accordingly quitting the throne, his son was proclaimed khedive, under the title of Tefvik I.

KHLISTIE, or **DANIELITES**, a Russian fanatical sect which originated in the first year of the emperor Alexis, A.D. 1645. They call themselves "people of God," "tribe of Israel," "worshippers of the true God," "brothers and sisters." According to their traditions, *God the Father* manifested himself in the person of Daniel Philippon or Philipitch. This they hold was his second manifestation in the flesh, and that as Jerusalem and Zion were by the previous manifestation enlightened, so now Russia and Kostroma, the birthplace of Daniel, are by this reappearance blessed with the divine favor. The historical facts are that Daniel Philippon, a peasant of the province of Kostroma, ran away from the Russian army, declared himself the Almighty, and wandering about, taught the people twelve commandments inculcating certain moral duties. They observe some of the practices of the regular church to avoid persecution. They have pictures of their god Daniel Philippon; their Jesus Christ, Ivan Timofegen; their mother of God, saints, prophets, and teachers, whom they adore. They call the church edifices of the orthodox ant-nests, and their priests idolaters and adulterers. Notwithstanding their absurdities, their sect is numerous, and has among its members many of the nobles of the land. After service they partake of an ordinary meal, which is prolonged till late in the evening, and often attended with licentious acts. The sect is known in different regions by different names.

KHODAVENDIGH'AR, a mountainous and well-watered region in Asiatic Turkey, on the coast of the sea of Marmora; pop. 1,100,000. Its soil is fertile, producing grain and fruit in abundance; manufactures of cotton and silk are among the industries. This country formed a portion of the ancient Bithynia and of Phrygia, and presents as a striking feature of its landscape the Keshish Dag, which was the Mt. Olympus of the fabulous court of Jupiter, at the foot of which is the capital, Brusa, or Broussa.

KHOKAN' (*ante*), a city, capital of the khanate of that name, 220 m. from Samarcand; pop. about 50,000. It is the seat of a considerable trade in Russian goods, with numerous bazaars. Native manufactures are silk and woollens, and riding equipments. There are several fine mosques in the city, which is also supplied with public schools.

KHONDISTAN', a small district in the province of Orissa, India, at the source of the Nerbudda river. The inhabitants, called Khonds or Khoonds, are a wild, uncultivated tribe of the non-Aryan stock, of the coarsest negro type in complexion and features, living upon wild fruits, roots, and game. Human sacrifices formerly prevailed among them, but were suppressed by the persevering efforts of maj.-gen. Campbell, the British agent. The Khonds, on account of their language and customs, are an interesting study for ethnologists.

KHOOLOOM', **KHULM** or **TASH-KURGAN**, a t. of central Asia, khanate of Koondooz, on the Khooloon river, a tributary of the Oxus. Pop. 10,000. It is on the high road to Balkh and Koondooz in lat. 36° 38' n., long. 68° east. The houses are of one story, of clay or sunburned brick. The town is surrounded by a wall defended by citadels.

KHOTAN', or **ILLITSI**, one of the four provinces of Kashgaria, formerly Chinese Toorkistan; the capital, Khotan, in lat. 37° n., long. about 79° e., was anciently a city of great importance, and is still a large place, having manufactories of silk, leather, paper, etc. The inhabitants are mainly Uzbek Tartars.

KHOTIN. See **CHOTYN**.

KI, a word in the Chinese language meaning a grand division of time, employed in relation to periods of 3,000 years, of which 10 are assumed to have preceded the first imperial dynasty B.C. 2,205.

KIANG'-SI, or **KIANG'-SEE**, a province of China, between lat. 31° and 35° n. and long. 116° and 122° e., bounded by the Yellow sea on the e., and landward by the

provinces of Shang-Toon, Ho-Nau, Ngau-Hoci, and Che-Kiang; 44,500 sq.m.; pop. 38,000,000. It is one of the most fertile regions of China. The surface is level, abounding in marshes, lakes, rivers, and canals. It exports more of both silk and rice than any other province in the empire. Hungtsih, the largest lake, is about 200 m. in circumference. The inhabitants are among the most intelligent of the Chinese people. Capital, Nanking.

KICKAPOOS', a tribe of North American Indians belonging to the comprehensive Algonquin family, formerly inhabited the region about the upper Mississippi, whence they gradually moved down into Illinois, and settled about the Wabash and Rock rivers. They were hostile to the English during the early settlement of the country, and on the outbreak of the revolution supported the colonists for a time, but at length turned against them, and a state of war continued until 1792, in which gen. Scott took an important part. In 1811 the Kickapoos fought with Tecumseh against gen. Harrison, and on the outbreak of the war with England they assumed the offensive, but were defeated by Zachary Taylor at fort Harrison. Treaties made in 1815-16 ceded a large portion of their lands, and the U. S. government procured their removal and settlement on the Osage river, paying them \$2,000 a year for 15 years for their own lands. Here for a few years, there was established a degree of civilization, missionaries of various denominations making every effort to educate and cultivate this troublesome tribe. But the predatory and savage instincts of the Kickapoos soon resumed the ascendancy, and their warriors went out killing and horse-stealing, making descents upon Texas and other Mexican states, and at length even turning upon the U. S. Indian agents, one of whom they murdered in 1854. They were then removed to a reservation in Atchison co., Kansas. A considerable number of individuals of the tribe eventually settled down on separate holdings, and became farmers and citizens; the remainder went into Mexico, where they lived by raids over the frontier for booty. In 1873 the number of Kickapoos on the Kansas reservation was about 300, about 1000 being in Mexico.

KIDD, WILLIAM, known as **ROBERT KIDD**; b. England about 1650; was a trader out of New York, and in the war between England and France, in the early part of the reign of William III., commanded a commissioned vessel in the West Indies, and was noted for his bravery. In 1695 he was appointed by the earl of Bellomont, governor of the province of New York, to assist in suppressing piracy, and received two commissions from the king, one as a privateer against the French and the other a roving commission to pursue and capture pirates wherever he might find them. He sailed from Plymouth, Eng., April, 1696, in a galley called the *Adventure*, carrying thirty guns and a crew of eighty men. After proceeding to New York he captured a French ship, divided the booty, and increased his crew to 155 men, when he disobeyed his orders to cruise on the American coast by sailing for Madeira, thence to St. Jago, Madagascar, Malabar, and the Red sea. He had not been very successful in capturing vessels, and he now turned pirate and attacked whatever he met that promised booty. He first took some small Moorish vessels, then fought a Portuguese man-of-war, which defeated him, and finally captured a Portuguese ship from Bengal and an Armenian vessel with a rich cargo. At Madagascar he burned his vessel and went on board the Armenian, the *Quedagh Merchant*, afterward purchasing the sloop *Antonio* and sailing in company. By this time he had been proclaimed a pirate by the English, who had dispatched a man-of-war in search of him. Proceeding to New York he coasted from Delaware bay to Block island, corresponding with the earl of Bellomont in the mean time, and finally delivered up to the governor in Boston the treasure which he had acquired by his captures, including 1111 ounces of gold, 2,353 ounces of silver, 57 bags of sugar, 41 bales of goods, and 17 pieces of canvas. On July 6, 1699, Kidd was arrested, the immediate charge against him being that of murder, he having killed a gunner on board the *Adventure* who had become mutinous. He was sent home to England, and in April, 1700, was tried and found guilty of murder and on five separate indictments for piracy. He was condemned and executed. After Kidd's death it became rumored about that he and his crew had buried immense treasures prior to his capture, and the coast from Block island s., and even islands in the Hudson river, have been many times searched for this rumored wealth, of which no portion has yet been discovered.

KIDDER, a co. of n. Dakotah, 1700 sq.m It is crossed by the Northern Pacific railroad

KIDDER, DANIEL PARISH, D.D.; b. N. Y., 1815; graduated from Wesleyan university (Conn.) and became a Methodist preacher. From 1837 to 1840 he was a missionary in Brazil; 1844-56 secretary of the Sunday-school union of the Methodist Episcopal church; 1856-71 professor of practical theology at the Garrett biblical institute, Evanston, Ill.; in 1871 he was elected to the same position in Drew theological seminary, Madison, N. J. He has written a number of books of which a popular account of Brazil, the joint production of rev. J. C. Fletcher and himself, with the title *Brazil and the Brazilians*, is the most noteworthy.

KIDDOO, JOSEPH B., b. Penn.; rose during the war of the rebellion from a private soldier in the 2d Pennsylvania volunteers to be brig.gen. He fought at Yorktown, Williamsburg, Fair Oaks, Malvern Hill, and in other important battles of the

armies of the Potomac and the James. He was severely wounded during the siege of Petersburg, Oct., 1864, while in command of the 22d U. S. colored troops, and was brevetted brig.gen. and maj.gen. for gallant conduct. In 1866 he received the appointment of col. of the 43d U. S. infantry, but, on account of ill-health resulting from his wounds, was retired from the service in Dec., 1870.

KIDO TAKAYO'SHI, a Japanese statesman, b. in the province of Choshiu about 1833, of gentle but not of noble birth. He actively participated in the acts and councils of his clan, that, with Satsuma and Tosa, led the coalition that overthrew the Tokugawa shogunate in 1868. He was present at the bombardment of Shimonoseki by the four allied foreign fleets in 1864, and was there converted to the idea of the superiority of foreigners and the impossibility of their expulsion from Japan. Thenceforward he became one of the most potent forces in that national movement, and one of the leading persons in that group of men, that overthrew the usurpation of 264 years and the effete feudalism of ten centuries. While Saigo was the heart and sword of the revolution, Kido became its brain and pen. He composed the able address to the throne, purporting to come from the four daimios of Satsuma, Hizen, Tosa, and Choshiu, which proposed and secured the abolition of the feudal system and the retirement of 270 daimios to private life, relinquishing their lands and incomes to the mikado. He was appointed envoy in the embassy to the United States in 1871, established the first newspaper in Japan, and secured the formation of an assembly of local rulers—a step towards representative government. Of pre-eminent political genius, of stainless life, and gentle manners, his loss to the nation was profoundly deplored by the mikado and the whole nation. He died in Kioto, May 23, 1877.

KIEL'CE, a Russian government of Poland on the Austrian frontier; 3,623 sq.m.; pop. 470,300. It is a rich mineral region, and produces rye, wheat, and fruits. The Vistula separates it from Galicia, and it is watered by the Nida and Pilica.

KIEL'CE, capital of the government of that name; pop. 7,205. It is situated about 100 m. from Warsaw, in the midst of iron, copper, lead, and coal mines. It is the seat of a Roman Catholic bishopric, and contains a number of churches, a theological seminary, and a monastery.

KIENCHOW', or KUNGCHOW. See HAINAN, *ante*.

KIEN'-LUNG, 1709-99; b. China; was the fourth emperor of the Manchu dynasty, and succeeded his father, Yung Tching, in 1735. His reign was remarkable for the hospitality which he extended to a tribe of 300,000 emigrants from the country of the Volga, to whom he gave land for their subsistence, while he extended to them his countenance and protection. Although an enemy of Christianity and author of an edict against it, he was the first Chinese emperor to receive an English embassy (lord Macartney, 1793). He was far in advance of his countrymen in wisdom and beneficence, and was noted for the encouragement that he afforded to the learned of all nations. At the age of 86 he abdicated in favor of his son.

KIEPERT, HEINRICH, b. Berlin, 1818; an enthusiastic student of geography in his youth, and later a pupil of Ritter; devoted two years to the exploration of Asia Minor (1841-42), and made an atlas of Greece and the Greek colonies on his return to Berlin. He was for seven years director of the geographical institute of Weimar, and in 1859 became a professor in the university of Berlin. He published several geographical works, among which his *Neuer Hand-Atlas der Erde* and *Atlas der alten Welt* are the most important.

KIESEWETTER, RAFAEL GEORG, 1773-1850; studied law in Vienna and held important official positions under the Austrian government, but devoted himself assiduously to historical writings on music, including that of Holland, Greece, and the Arabs. Among these, the chief work from his pen was a history of song from the period of the middle ages down to modern times.

KIEV. See KIEF, *ante*

KIJ'ARI. See KEDJERI, *ante*.

KILAUE'A, a vast crater in the e. part of the island of Hawaii, 10 m. from the sea, on the e. slope of the great volcano of Mona Loa, 4,000 ft. above the sea, and 9,800 ft. below the summit of Mona Loa. It is 30 m. by bridge-road from the seaport of Hilo, from which it is usually visited. The entire island of Hawaii is one vast pile of lava, the outflow of many craters, of which the summit crater of Mona Loa is the greatest, and Kilauea, near the base of the mountain, the most constantly active. The latter forms no cone of itself, but is a great sink on the side of the mountain, in the midst of grazing lands, trees, and ferns on the side to the windward of the crater. This sink is 3 m. long, 2 m. wide, and in the parts where the lava is not boiling from 500 to 800 ft. deep. The floor of the crater, being formed by the streams that constantly flow and cool in one or another part of it, is being filled up slowly in periods of moderate activity, but is liable to fall in or sink at any time, especially during great volcanic activity when eruptions elsewhere draw off the lava from below. At the e. end of this great sink are the pots and lakes of boiling lava, around which are low conical slopes of lava and ashes, but nowhere rising to the level of the ledges that surround the crater-sink.

The lava in one or another of these little lakes is in perpetual ebullition, and flows out through a subterranean channel under the rim of the active craters to the lower level of the main crater-basin, forming small or large streams upon its black surface, which cool quickly and can be walked upon within a day or two after the lava ceases to flow. Travelers walk for miles upon these streams where the red, partly cooled lava can be seen in the crevices under their feet. In 1868, when Samuel L. Clemens (Mark Twain) visited the crater, it showed signs of unusual violence in its eruptions, and bid fair to fill and overflow the great sink; but a mud and lava eruption broke out on a grazing slope of the mountain 20 m. away, when the unusual activity of this crater ceased, while the mud flow submerged a valuable grazing country and made its way down the mountain far into the sea. The great eruptions from this crater were those of 1789, 1823, 1832, 1840, and 1868. There seems to be no subterranean connections between the sources of the eruptions from Mona Loa and Kilauea, each having its periods of terrible activity without seeming to affect the other. There is (1874) a pleasant rustic inn or volcano-house on the ledge overlooking the crater, and the road from Hilo to the crater furnishes an example of an ancient Hawaiian paved road, 6 ft. wide, that rises and falls on a straight course over the low lava ridges towards the crater. The crater is about 250 m. by sea from Honolulu. A steamer plies irregularly between that city and Hilo.

KILBOURNE, JAMES, 1770-1850; b. Conn.; was engaged in trade in early life, but, having acquired sufficient means for his support, adopted the ministry as a profession, and attached himself to the Episcopal church, in which he continued until 1804, when he retired. Having formed an organization for the settlement of western lands, he emigrated to Ohio, and founded Worthington township in that state. Here he became a magistrate, and also filled the office of surveyor of public lands. He was sent to congress in 1813, and served four years. He was president of the board of trustees of Worthington college during 35 years.

KILDA, SAINT. See SAINT KILDA, *ante*.

KILDEER, an American bird belonging to the plover family, of the order *grallatores*, or waders; allied therefore to the cranes and herons. It is the *charadrius vociferus* of Linnaeus, but now placed in another genus, *agialitus*, and is called *agialitus vociferus*. It inhabits North and South America. It is about 10 in. long, with a spread of wing of 20 inches. Head small; neck rather short with a black ring around it; body slender, weight from 5 to 7 oz.; legs rather long, but not as much so as in others of the order; feet long and slender. Feathers on breast and underpart nearly white; on back and upper surface of head, grayish brown; below the ring on the neck there is a black transverse band on the breast. Quills dark-brown, with half their inner webs white. Four middle tail feathers white-tipped, with a wide subterminal black band, and the lateral ones widely tipped with white. The kildeer is common throughout North America, going to the south in winter and to Atlantic and Pacific islands. In summer it frequents plowed fields and sandy or gravelly banks of clear streams, feeding principally on worms and insects. In the winter it goes to the sea-shore and frequents marshes, mud flats, and oyster beds. Its flight is powerful, and it is a very rapid runner. It breeds at the south in April; later in the middle states. It usually lays four eggs, $1\frac{1}{2} \times 1\frac{1}{4}$ in., cream colored, with brown blotches. It frequently utters a shrill cry, especially when alarmed, which somewhat resembles a repetition of its name. The flesh is said to be tough, like that of other members of the order, but it is one of the most inoffensive and useful birds, as it feeds mostly on destructive insects, and should never be killed. See CHARADRIADÆ; and GRALLÆ.

KILHAM, ALEXANDER, 1762-98; the founder of the "New Connection of Wesleyan Methodists," often called Kilhamites. He was the first to advocate the representation of the lay element in the government of the church; was converted at the age of 18; and in 1785 received by Wesley into the regular itinerant ministry. After the death of Wesley there was much controversy among his followers as to the duty of continuing their submission to the established church. At the first conference after Wesley's death in 1791 it was decided to "take the plan as Mr. Wesley had left it." But the controversy continued, some from their attachment to the establishment opposing any change, while others were determined to administer the sacraments as well as preach the word, and urged a total separation from the church of England. Kilham was of the latter class. Three years before Wesley's death he had declared, "Let us have the liberty of Englishmen, and give the Lord's supper to our societies." At the next conference he was severely criticised for his assertion of the popular rights, and for the publication of a pamphlet on the *Progress of Liberty*, in which he urged a distribution of the powers of government between the clerical and lay element. For severe remarks which he made that the preachers regarded as defamation of the society, he was formally arraigned at the conference held in 1796, and expelled from the connection. This resulted in the formation of the independent body now called "New Connection Methodists." He did not long survive the censure. All acknowledged him to be a man of fervent piety, and zealous for the success of the Wesleyan cause.

KILLER, or ORCA, a cetacean of the dolphin family, noted for its great ferocity and voracity. The average length of the males is 20 ft., of the females, 15 feet. An

extremely prominent dorsal fin is situated about two-fifths of the distance between the nose and tip of the tail. This fin is 6 ft. in height in the largest of the animals, the *orca rectipinna* of Cope, and has the shape of a dagger. There is also the *orca ater* of the same naturalist, somewhat smaller and having a much shorter fin. There has always been a want of precise classification in this branch of the dolphin family, on account of the difficulty of capturing these fierce and powerful animals. The *orca gladiator* of the Atlantic is said to be a distinct species, and the fiercest of all the genus. The *orca rectipinna*, according to capt. Scammon, is more slender in proportion and less marked with light spots than the other species. It is almost of a jet-black above, and lighter beneath; but the smaller species are beautifully variegated, and often contrast in color like the stripes of a tiger. There is a transverse, crescentic dorsal band of white just behind the dorsal fin, which forms a prominent characteristic in two varieties of *orca ater*. The mouth in all the species is armed with strong, sharp, conical teeth which interlock like those of the smaller dolphins. The short-finned killers of the western coast were till recently supposed to be confined to the colder regions, but it has been found that they frequent both high and low latitudes, and capt. Scammon regards them as "marine beasts that roam over every ocean, entering bays and lagoons, where they spread terror and death among the mammoth bakenas and smaller species of dolphins, as well as pursuing seal and walrus, devouring in their marauding expeditions up swift rivers numberless salmon and other large fishes that come in their way." Sometimes the orcas are seen in schools from 5 to 10 abreast, but more frequently go in smaller squads of less than a dozen, gliding near the surface of the water, showing nothing but their tall dorsal fins; sometimes showing more than half the body; sometimes leaping out. The larger orcas are possessed of great power of locomotion, quickly overtaking other species of dolphins and swallowing them whole. Capt. Scammon saw an attack made by three killers upon a cow whale and her calf in a lagoon on the coast of lower California in the spring of 1858: "The whale was of the California gray species, and her young was grown to three times the bulk of the largest of the killers engaged in the contest, which lasted for an hour or more. They made alternate assaults upon the old whale and her off-spring, finally killing the latter, which sank to the bottom, where the water was five fathoms deep. As soon as their prize had settled to the bottom the three orcas descended, bringing up large pieces of flesh in their mouths, which they devoured after coming to the surface. While gorging themselves in this wise the old whale made her escape, leaving a track of gory water behind." He also states that orcas have captured whales from whalers hauling them away under the water. Eschricht, in his *Northern Species of Orca*, says that they have been known to swallow four porpoises in succession, and that 13 of these animals, together with 14 seals, have been found in the maw of one of these killers. Among the icy regions the orcas pursue and destroy the white whale or beluga and carry off the young of the walrus. They sometimes pursue the white whale into the bays and literally tear them to pieces, devouring only a portion of what they destroy.

KILLINGTON PEAK, an elevation of the Green mountain range, 9 m. e. of Rutland, Vt., and 4,180 ft. above the sea. The prospect from the summit is exceedingly fine. Only two of the Vermont mountains, Mansfield and Camel's Hump, are higher than this.

KILMAINE', CHARLES JENNINGS, 1750-99; b. Dublin; was an officer in the French army, and with La Fayette in the American revolution. He also fought in the Vendean war, and when, in 1797, a descent upon England was contemplated, he was chosen general-in-chief of the proposed army of invasion.

KILN, a name applied to various kinds of furnaces, ovens, or other devices made of stone, brick, or iron, or of the material itself to be operated upon. They may be divided into intermittent and continuous, or perpetual; or into furnace-kilns, oven-kilns, and what may be termed mound-kilns, such as are used in making charcoal; and also a kind which are intermediate between oven and mound-kilns, as certain kinds of brick-kilns, where the raw brick is a part of the kiln, and forms a structure which cannot be strictly called an oven.

The *furnace-kiln*, for burning limestone, may be of an intermittent or of a perpetual kind. An intermittent kiln is one in which the fire is let to go out after the charge is burned; a continuous kiln is one which is so arranged that the charge may be removed and a fresh one put in while the fire is kept burning, and the furnace kept at its reducing heat. An intermittent furnace-kiln may be made of stone or brick of an oval form, like an egg standing on either end. That form resembling an egg standing on its larger end is perhaps the most common, although some lime kilns are shaped more like deep bowls, without much contraction at the top. Where wood is very plentiful and cheap, and the lime is burned for agricultural purposes, so that ashes is a desirable ingredient, a common bowl shape is perhaps preferable, because it is readily charged with both limestone and wood, and a mass of wood may be placed upon the top in addition to what is used in the charge, by which thorough burning will be secured. In a furnace-kiln a grating of iron is placed at the bottom, or an arch of open brickwork, and then the charge is ingeniously placed, first with fuel, and then with the broken masses of limestone in such a manner as to allow the flame to pass through, and thor-

oughly perform the work of heating. These kilns may be from 10 to 30 ft. high, or even higher. Intermittent oval kilns are used in burning Portland and other kinds of hydraulic cement, and they are 40 or 50 ft. high, and employ coke or coal for fuel. The charge is usually composed of one part of coke or coal and two parts of raw cement. There are, however, several kinds of cement which do not require so prolonged high heat as Portland cement, and these may be burned in a kind of kiln so constructed as not to require the fire to go out when the burned contents are removed. These kilns are cylindrical, except at the bottom, where they have the shape of an inverted cone, and a chamber below and a kind of spout leading into it from the bottom of the cone, so that the charge when burned may be raked down from time to time with a suitable apparatus, and removed, while it may be renewed at the top. Cement-kilns should be lined with fire-brick. A preferable form of continuous kiln is one in which the kiln cylinder is charged only with the material to be burned, and a current of flame or heated gas is introduced at the side near the bottom. The heat thus passing up through the material reduces it to the proper condition, without adding any of the ashes of the fuel to it.

Brick-kilns are of three kinds: 1. That in which the raw brick are piled up in such a way as to form flues for the flame and hot gases of the fuel to pass through, and which are in more common use than the others, and called by the workmen clamps. 2. That kind of kiln in which common stoneware is baked, which is a sort of reverberatory furnace, and unlike the kiln in which the better kinds of earthenware are baked. 3. An example of a third form of brick-kiln, now used to a considerable extent, is Hoffmann's annular brick furnace, which was on exhibition at Paris in 1867. It consists of a large annular chamber, divided into sections, with openings on the periphery for the reception of the bricks or material to be baked. Movable partitions divide the sections. Each compartment of bricks is burned successively, the heat passing from one section to another, so that very little is lost. Kilns or furnaces of this kind are used for other purposes, as the degree of heat can be easily regulated. It is a very fine form of kiln for drying and seasoning lumber. Pottery-kilns are usually in the form of a tall cylinder of various dimensions, from 15 to 30 ft. in diameter, rising from 15 to 20 or more ft., and terminated by a truncated cone of about two-thirds the height of the cylindrical part. Coal-burning furnaces are placed at different parts of the circumference at the floor of the kiln and rather below it, the flues from all of them passing to a common opening at the center of the floor, where the heat enters and passes through the contents of the kiln, which are usually placed in receptacles called seggars. The porcelain-kiln differs from the earthenware-kiln in having two stories instead of one, the upper one being used for the first "firing," which is done at a lower heat than for earthenware. For the manner of using the various forms of kiln see **BRICK**, **POTTERY**, and **WOOD CHARCOAL**.

KILO, or **KILOGRAM**. See **GRAM**, *ante*; and **METRIC SYSTEM**.

KILOLITER. See **METRIC SYSTEM**.

KILOMETER. See **METRIC SYSTEM**.

KILPATRICK, **HUGH JUDSON**, b. N. J., 1836; graduated at West Point in 1861, and was appointed to the 1st artillery. He was wounded at the battle of Big Bethel, and received rapid promotion, being a col. of cavalry in 1862, and commissioned brig.gen. of volunteers the following year. He was in command of a division at Gettysburg, and the following spring, 1864, joined gen. Sherman, with whom he continued until the close of the war, being severely wounded during the battle of Resaca. He was commissioned maj.gen. in 1865, and resigned from the regular army in that year and from the volunteer service Jan. 1, 1866. From 1865 to 1870 he was U. S. minister to Chili. In 1880 he was a prominent candidate for the republican nomination for governor of New Jersey.

KIL'WA, or **QUIL'OA**, a t. on an island off the e. coast of Africa; 6 m. long; between which and the mainland there is a fine harbor. Lat. 8° 57' south. It contains a strong fort, which is the residence of the governor under the sultan of Zanzibar.

KIMBALL, **HEBER C.**, 1801-68, a noted Mormon priest; was an active missionary of the sect, one of the 12 apostles, and high-priest of the order of Melchizedek. He visited England in 1837-38 on a proselyting expedition, and was one of the foremost promoters of the Mormon religion, both at Nauvoo and Salt Lake.

KIMBALL, **RICHARD BURLEIGH**, b. N. H., 1813; graduated at Dartmouth college in 1834, went abroad, and returning began the practice of law in New York city. He has written a number of novels, of which the earliest, *St. Leger* (1849), was the most successful, having been republished in England and Germany.

KIMBLE, a co. in s.w. central Texas, drained by the Llano river and its n. and s. forks; 1300 sq.m.; pop. '70, 72. The surface is rough and broken, but the soil is good for pasturage. The valleys are fertile, but require irrigation. Salt is found in many places and timber abounds. Capital, Junction City.

KIMHI, **DAVID**. See **KIMCHI**, *ante*.

KINDERHOOK, a township in Columbia co., N. Y., 5 m. e. of the Hudson river, 20 m. s.e. of Albany. It was the birthplace and home of Martin Van Buren, eighth president of the United States. The township contains 3 villages—Kinderhook, Valatie, and Niverville. Kinderhook village has a weekly newspaper, 4 churches, 2 national banks, and a cotton-mill. "Lindenwald," the former residence of Mr. Van Buren, is 2 m. s. of the village.

KING, a co. in the w. central part of Washington territory, bounded e. by the Cascade mountains and w. by Admiralty inlet and Puget sound; pop. '80, 6,910. It is drained by the Snoqualmie, Cedar, and Green rivers. The surface is diversified with mountains, vales, and forests, and the soil is for the most part fertile, producing wheat, oats, hay, and potatoes. Valuation of real and personal property, \$1,113,765. Capital, Seattle.

KING, CHARLES, LL.D., 1789-1867; b. New York; son of Rufus; educated at Harrow, England, and at Paris, while his father was minister to Great Britain; and served afterwards for a time in a banking-house in Amsterdam. In 1806 he returned to New York, and in 1810 entered into business with his father-in-law, Mr. Archibald Gracie. He was a volunteer soldier in the war with England in 1814, and was afterwards sent as commissioner to that country to investigate the case of the Dartmoor prisoners. He was associate editor with Verplanck of the *New York American*, 1823-27, and sole editor 1827-47. After this he was for a time associated with James Watson Webb as editor of the *Courier and Enquirer*. He was appointed president of Columbia college in 1849, and held that office until 1864. He died at Frascati, Italy. He was the author of a *History of the New York Chamber of Commerce*, of a sketch of the Croton aqueduct, and of many pamphlets.

KING, EDWARD, b. Mass., 1848; son of a Methodist minister; was privately educated, but in this manner went through the entire course of study in vogue at Williams college. When only 17 years of age he entered the office of the Springfield (Mass.) *Union* as a compositor, becoming almost immediately local editor. The late Samuel Bowles, editor of the Springfield *Republican*, noticed his work, and being impressed with his ability sent him to Europe as a special correspondent. This was in 1867, and on his return Mr. King became literary editor of the *Republican*. In the following year he edited the *Evening News*, an offshoot of the *Republican*. In 1869 he was again in Europe as special correspondent of the Boston *Journal*, and in that capacity followed the Franco-Prussian war and the incidents of the Paris commune in 1870. Until 1872 Mr. King was a member of the *Journal* editorial staff; he then traveled through the south, accompanied by an artist, and contributed to *Scribner's Monthly* a series of illustrated articles on that section. During this journey he traveled 25,000 m., of which 1200 was on horseback. In 1875 he went to Europe again, and from Paris corresponded with American papers. The following year he represented the Boston *Journal* at the Centennial exhibition in Philadelphia; and in 1877, being once more in Europe, wrote letters for the American press from the seat of war in Bulgaria. Mr. King has published in book form—*My Paris*, 1868; *Kentucky's Love*, a novel, 1872; *The Great South*, 1874; and *French Political Leaders*, 1876.

KING, JOHN ALSOP, 1788-1868; b. New York; eldest son of Rufus; educated at Harrow, England, and at Paris, while his father was minister at the court of St. James; served as a cavalry officer in the war of 1812-15 with England; was a member of the New York assembly in 1819, and of the senate in 1823. He was secretary of legation in England in 1826, and subsequently *chargé d'affaires* there; a member of congress, 1849-51; governor of New York, 1857-58; delegate to the "peace convention" of 1861 in Washington, and to the New York constitutional convention of 1867. Died at Jamaica, L. I.

KING, JOHN CROOKSHANKS, b. in Scotland, 1806; was a machinist by trade, and coming to this country engaged in manufactures in the west for a number of years. He afterwards removed to New England and devoted himself to sculpture.

KING, JOHN P., b. Ky., 1799; was soon afterwards taken by his father to reside in Bedford co., Tenn., where he remained until 1815, when he removed to Georgia, where he studied law, and was admitted to the bar at Augusta in 1819. In 1822 he went to Europe, where he was engaged for two years in completing his education. Returning home he soon attained eminence in his profession, and in 1833 was a delegate to the Georgia constitutional convention, in which he served with distinction. In 1834 he was elected by the democratic party to the U. S. senate, serving until 1838, when, on account of differences with his party, he resigned his seat and returned to the practice of his profession. In 1841 he was elected president of the Georgia railroad and banking company.

KING, JONAS, D.D., 1792-1869; b. Mass.; graduated at Williams college, 1816; Andover seminary, 1819. On leaving the seminary he engaged in home-mission work in Massachusetts; also in Charleston, S. C., where he was ordained as an evangelist. In preparation for mission work in the east he went to Paris and studied Arabic under De Sacey. From 1823 to 1825 he traveled in Egypt and Syria with the rev. Pliny Fisk under

the patronage of the American board, distributing the Scriptures and preaching Christ. He returned to America in 1827. In 1828 he relinquished the professorship of languages in Amherst college which he had held for some years, declined a similar one from Yale, and acceded to a request from the ladies' Greek committee of New York that he would go to Greece as their missionary. They had been stirred by his recitals of the sufferings of that country from Turkish despotism; had prepared a shipload of food and clothing, and wished to send food for "the soul as well as the body." He reached Poros, Greece, July 28. Supplies for the body and Christian books and instruction seemed for a time to be received with almost equal eagerness. Every day persons came begging for the New Testament, sometimes the number of applicants reaching 150. Sometimes a school of boys with their teacher would come for this purpose before breakfast. In one instance a bishop asked for New Testaments for the use of his priests, that they might "be able to teach the people properly." Dr. King made known the gospel in the streets, under a fig tree, or wherever he could find hearers. People would assemble in companies of fifty or sixty and listen with eagerness. Even the priests would give attention and approve what was said. The president of Greece seemed to look favorably on his efforts. He visited many important places, everywhere preaching, and promoting the interests of education and morality, and, where there was need, relieving want. There were many who testified to the value of his instructions and his aid in their own experience. In 1829 Dr. King married Miss Mengous, a Greek lady of influence. In 1830, at the request of the American board, his mission was transferred to its care. When Dr. King established schools, it was with the condition that the Scriptures should be studied in them. In 1855 the minister of education wrote to all the teachers of Greece commending the reading of the Scriptures as tending to regulate morals and citing the teachings of St. Chrysostom in their favor. Meanwhile the hierarchy of the Greek church had not looked on with indifference. As early as 1835 a member of the "holy synod" preached against the American schools, threatening with excommunication those who sent children to them. The minister of the interior, however, said: "Go on with your work; it is good." In 1844, being accused in some of the Greek papers of speaking against the doctrines of the church, Dr. King answered in the same papers, showing by quotations that Chrysostom, Basil, and Epiphanius taught what he taught. In 1845 there was issued against him, by both the Greek synod at Athens and the so-called "great church" at Constantinople, "an excommunication from the whole community." These were sent to churches throughout Greece and Turkey. In 1846, at the instigation of the Greek synod, he was brought before the Areopagus charged with having in one of his books reviled the mother of God, the holy images, etc. When asked, "Have you any defense to make?" he answered: "Those things in my book with regard to Mary, with regard to transubstantiation, and with regard to images, I did not say; but the most brilliant luminaries of the eastern church, St. Epiphanius, St. Chrysostom the great, and others, say them." He was condemned to be tried before the felon's court in Syra. An inflammatory pamphlet was circulated in advance, with the avowed sanction of a high priest. His life was threatened, the governor of Syra declared himself unable to protect him. Through the influence of several distinguished lawyers, also of the minister of foreign affairs and the minister of justice, this trial did not take place. In another instance a conspiracy of fifty men against his life was thwarted. In 1847 an accusation brought against him, though proved false, caused such an excitement that the king advised his leaving the country for a time. He therefore visited various parts of Europe, returning in 1848 to his work. In 1851 he was appointed consular agent for the United States. A flag for the use of the consulate was received by him, and the same evening it became necessary to unfurl it in the presence of a mob which threatened violence. In Mar., 1852, he was again brought to trial on a charge of reviling the God of the universe and the Greek religion, and condemned to fifteen days' imprisonment and to leave the country. He protested in the name of the U. S. government. Soon afterwards George P. Marsh, minister-resident of the United States at Constantinople, was ordered by his government to investigate the whole affair, which he did. In 1854 the king of Greece issued an order freeing Dr. King from the penalty of exile. He remained at his work as usual. In 1857 he attended the meeting of the evangelical alliance at Berlin. In 1864, after an absence of three years, he returned to Greece, where his useful life closed. His original works, in Arabic, Greek, and French were ten in number, some of them being widely read and translated into other tongues. Eleven others he revised and carried through the press. He distributed 400,000 copies of school books and Scripture portions in Greece and Turkey, besides what he scattered during his travels in other parts of Europe, and in Palestine, Syria, and Egypt. But perhaps his most remarkable quality was a happy tact in using conversation as a vehicle of religious instruction and impression. Greece has paid many tributes to his worth and service, and will yet show their large results.

KING, PETER, Lord, 1669-1734; studied at the university of Leyden, read law in the Inner Temple, and was called to the bar. In 1699 he entered parliament, where he was one of the managers of the impeachment of Dr. Sacheverell. George I. made him chief-justice of the common pleas, and in 1725 he became lord chancellor. He resigned in 1733.

KING, PHILIP PARKER, 1793-1855; b. on Norfolk island, Australasia; entered the British navy in 1807; went on an exploring expedition to Australia in 1817, and to South America in 1825. In 1854 he was made rear-admiral of the blue, the first native Australasian who attained that rank in the profession.

KING, PRESTON, 1806-65; b. Ogdensburg, N. Y.; was educated at Dartmouth college, and afterwards studied law, which he practiced in the interior of his native state. In 1830 he was an editor in St. Lawrence co., supporting gen. Jackson, then president. He was made postmaster at Ogdensburg, and afterwards a member of the state assembly, member of congress, and U. S. senator 1857-63. In 1853 he had renounced the principles of the democratic party, and he continued to act with the republicans thereafter. In 1865 he was appointed by president Johnson collector of the port of New York, and during the same year, while temporarily deranged, leaped from a Jersey City ferry-boat and was drowned.

KING, RUFUS, 1814-76; b. New York; son of Charles; graduated at West Point military academy in 1833; remained in the army for 3 years, being commissioned as brevet second lieut. of engineers. In 1836 he resigned his commission in the regular army to take a position as engineer on the Erie railway, holding it for 2 years. From 1839 to 1843 he was adjt. gen. of the state of New York. He was at one time on the staff of the *Albany Evening Journal*, and in 1839 was editor of the *Albany Advertiser*, conducting it for 6 years, and on removing to Milwaukee took the same position on the *Milwaukee Sentinel*, which he filled from 1845 to 1861. In 1861 he was appointed U. S. minister to Rome. He returned to this country during the war of the rebellion, and was present, as a brig. gen. of volunteers, at the battles of Fredericksburg, Groveton, Manassas, Yorktown, and Fairfax in command of a division. In 1863 he resumed his former position at Rome, remaining there until 1867.

KING, RUFUS, LL.D., 1755-1827; b. Scarborough, Maine. After his graduation from Harvard college he read law with chief-justice Parsons, and was admitted to the bar in 1780. In 1782 he took his seat in the legislature of Mass., to which he was several times re-elected. In this capacity he supported a measure which gave congress power to lay an impost of 5 per cent. He became a member of the continental congress in 1784 and introduced a resolution prohibiting slavery in the territories. The substance of this resolution was subsequently incorporated by his colleague, Nathan Dane of Mass., into the famous ordinance of 1787. He took a prominent part in the proceedings of the convention which formed the U. S. constitution, and, in the convention called in Massachusetts to decide upon the adoption or rejection of the new constitution, he was one of the most distinguished defenders of that instrument. In 1788 he removed to New York, from which state he was elected senator in 1789, and at once took a high place as a leader of the federalists. King was re-elected to the senate in 1795, and in 1796 he accepted from president Washington, who had previously offered him a place in his cabinet as secretary of state, the responsible post of minister to England. He distinguished himself highly in the diplomatic service, in which he continued for eight years. In 1813 and again in 1819 he received the honor of an election to the U. S. senate by a legislature a majority of which was republican and strongly opposed to his politics. During the war with England Mr. King did not side with the extreme federalists, but supported the administration in such measures as seemed to him to be for the general good. After the war he opposed the bill for the creation of a U. S. bank, and he was strongly opposed to the admission of Missouri to the union. Mr. King retired from the senate in 1825 and re-entered public life only to accept for a time the post of ambassador to England during the administration of John Quincy Adams, but owing to ill-health he remained but a short time.

KING, THOMAS STARR, 1824-64; b. New York; an eminent Unitarian minister; studied theology in intervals of leisure from necessary employment, and preached his first sermon at Woburn, Mass., in 1845. In the following year he took charge of the pulpit formerly occupied by his father, in Charlestown, and remained in that charge until he removed to Boston, where, for 12 years, he was pastor of the Hollis street church. Besides fulfilling the duties of his profession, and acquiring a high reputation as an eloquent, fervent, and spiritual preacher, Mr. King gained wide popularity as a public lecturer, in which capacity he found constant employment from 1845 to 1860. In the latter year he received a call to the only Unitarian church in San Francisco, and, having accepted it, began his ministrations there in the summer. The outbreak of the rebellion afforded Mr. King an opportunity of manifesting the firmness of his loyalty, and of exercising a powerful influence toward the national government among the people of California, a state which, in the beginning, was at least lukewarm in its devotion to the union. His stirring speeches, made in different parts of the state, revived the drooping patriotism of the people, many of whom were from the southern states, while others were adventurers who were bound by no ties of attachment whatever, national or local. He specially employed his almost matchless eloquence in soliciting aid for the noble purpose undertaken by the U. S. sanitary commission, and to him was chiefly due the splendid gift of California to that cause. Mr. King's death, which occurred in San Francisco, was sudden, and was deeply deplored throughout the country. Besides his ability as an orator, he was an agreeable and

striking writer. He wrote *The White Hills: their Legends, Landscapes, and Poetry*, 1859, and contributed frequently to reviews and other periodicals.

KING, WILLIAM, D.D., 1650-1729; graduated from Trinity college, Dublin, and took orders in 1674. In 1688 he was made dean of St. Patrick's; in 1691 bishop of Derry; and in 1702 archbishop of Dublin. He wrote several theological books, and one of them, his treatise *De Origine Mali*, was assailed by Bayle and Leibnitz.

KING, WILLIAM RUFUS, 1786-1853; b. N. C.; graduated from the university of North Carolina in 1803, and was admitted to the bar in 1806. He served for several years in the legislature of his native state, and in congress, 1812-16, where he was a strong advocate of the war with England. He was attached to the U. S. legation 1816-18, first at Naples and afterwards at St. Petersburg. On his return he removed to Alabama, and was a member of the convention which drew up a constitution for the new state, of which in 1819 he was elected the first senator. He remained in the senate till 1844, when president Tyler appointed him minister to France, where he remained till 1846. In 1848 he went back to the senate, of which in 1850 he was elected president upon the succession of vice-president Fillmore to the presidency. In 1852 he was elected vice-president upon the democratic electoral ticket with Franklin Pierce as president. Early in 1853 he went for health to Cuba, where he was permitted to take his oath of office. He returned early in April and died in the same month.

KING AND QUEEN, an eastern co. of Virginia; bounded on the s.w. by the Mattaponi river; 339 sq.m.; pop. '70, 9,709; having an undulating surface and valuable marl beds. Corn and wheat are the staple products. Capital, King and Queen Court-house.

KINGBIRD, one of the members of the great order of *insessores*, or perchers. It belongs to the *colopteridae*, or fly-catcher family, and is included in the genus *tyrannus*, its specific name being *T. Carolinensis* (Baird). It is sometimes called the bee martin, and inhabits that part of North America e. of the Rocky mountains. It is 8½ in. long, with a wing about 5 in.; color above, dark bluish ash; breast and throat, pale bluish ash; top and sides of head, bluish black; concealed crest, vermilion in the center, white behind, and an orange tint before. It is very courageous, attacking hawks, crows, and other large birds. It is an unerring insect catcher, and is one of the most useful, beautiful, and interesting of our birds.

The gray kingbird, *T. Dominicensis* (Rich), is a native of the West Indies, but visits the southern states; body 8 in., wing 4½. Another species of this genus is *T. verticalis*, or Arkansas fly-catcher, of western North America, 8½ in. long, wing 4½ in. long; general color ashy, yellow beneath, tail nearly black, wings brown, crest vermilion in center, yellowish before and behind, and very much resembles the bee martin. There are also Cassin's fly-catcher of Mexico and Texas, *T. vociferans*, nearly 9 in. long; and Conche's fly-catcher, *T. Conchii* (Baird), of Mexico, 9 in. long, with a wing of 5 in. All these are useful and beautiful.

KINGFISH. See ОРАН (*ante*), and LAMPRIIS.

KING GEORGE, a co. of Virginia, between the Potomac and Rappahannock rivers; 176 sq.m.; pop. '80, 6,397. The surface is uneven, but much of the soil is fertile. Corn and wheat are the staple products. Valuation of real and personal estate, \$1,511,329. Capital, King George Court-house.

KINGKITA'O, or HANCHING. See SEOUL.

KINGLET, a bird belonging to the thrush family, sometimes called golden-crowned warbler and wren. It is a permanent resident of Great Britain. Its color above is a yellowish olive-green; below, a yellowish-gray, while the crest is orange-yellow, bordered with black. It has a soft and pleasing song, frequents fir-woods, builds a beautiful cup-like nest, which it hangs on the twigs of a tree. It is very bold in defense of its young. Two nearly allied species of the same genus (*regulus cristatus*) exist in North America, and are known as the ruby-crowned and golden-crested kinglet or wren.

KINGMAN, a s. co. in Kansas, drained by Chikaskia river and the s. fork of the Ninne Seah; 864 sq.m.; pop. '70, 3,500. Capital, Kingman.

KINGS, a co. of New York, at the w. end of Long island, and including some small islands along the coast; 72 sq.m.; pop. '80, 599,549. The soil is naturally light, but its proximity to New York makes it exceedingly valuable. Garden products are the principal crops. The capital is Brooklyn, the third city in the union in population. The inhabitants of the county, outside of that city, number but 34,670. Valuation of real and personal estate, \$700,000,000.

KING'S, a co. in the s. central part of New Brunswick, intersected by the river St. John; 1565 sq.m.; pop. 24,953. Its surface presents hills of a gentle elevation and level, fertile valleys. The Intercolonial railway, and that from St. John to Bangor, cross the county. Capital, Hampton.

KING'S, a co. of Nova Scotia, bordering on the bay of Fundy and on Minas basin; traversed by the Windsor and Annapolis railway; 812 sq.m.; pop. 21,510. The soil is fertile, and there are in some places rich deposits of iron ore. Ship-building is carried on to some extent, but the chief occupation is farming. Capital, Kentville.

KING'S, the easternmost co. of Prince Edward Island; 644 sq.m.; pop. 23,068. Capital, Georgetown.

KINGS, BOOKS OF (*ante*), were originally one, and, being still one in subject-matter, are naturally divided into three parts: I. The history of the undivided kingdom, from the old age of David to the death of Solomon. The latter days of David; the attempt of Adonijah to obtain the succession; the inauguration of Solomon, by David's command, accompanied with a solemn charge by the father to the son; David's death; Solomon's vigorous administration; his building and dedication of the temple, followed by the organization of its worship and service; his wisdom, commercial prosperity, and renown; his fall into idolatry, and the consequent troubles of his closing years. II. The history of the kingdoms of Judah and Israel to the end of the latter. The accession of Rehoboam, and the secession of the ten tribes; the reigns of Rehoboam over Judah, and Jeroboam over Israel; of Abijam and Asa over Judah; and Nadab, Baash, Elah, Zimri, and Omri, with the accession of Ahab, over Israel; of Jehoshaphat and Jehoram over Judah; and Ahab, Ahaziah, Jehoram, and Jehu over Israel; illustrated by the life and translation of Elijah the prophet, and the beginning of Elisha's work; of Jehoash over Judah, and Jehoahaz and Jehoash over Israel, during the last of which Elisha died; of Amaziah, Uzziah, and Jotham over Judah, and Joash, Jeroboam II., Zechariah, Shal-lum, Menahem, Pekahiah, and Pekah over Israel; of Ahaz over Judah, and Hoshea over Israel, during whose time Samaria was taken, and the ten tribes were carried captive into Assyria, thus ending the kingdom of Israel. III. The history of the kingdom of Judah to the captivity in Babylon. The reign of Hezekiah, who reformed religion, cast off subjection to the king of Assyria—from whose powerful army he was delivered by divine interposition—and, raised up from impending death, had 15 years added to his life; obscuration of these by elation of heart and consequent folly; the captivity in Babylon foretold; the reigns of Manasseh and Amon, both disgraced by flagrant impiety and crime; of Josiah, illustrated by his early piety, reformation of religion, and whole-hearted zeal for God and the right; of Jehoahaz, Jehoiakim, Jehoiachin, and Zedekiah; the capture of Jerusalem, burning of the temple, and carrying away of the Jews to Babylon.

KINGSBOROUGH, LORD (EDWARD KING), 1795–1837; devoted himself to antiquarian researches, particularly in connection with Mexico. In 1830 he began the publication of his great work on that country, at his own expense, and at a cost exceeding \$250,000. Seven volumes of this work appeared during the life-time of the projector, under the title *Antiquities of Mexico, comprising Facsimiles of Ancient Mexican Paintings and Hieroglyphics, together with the Monuments of New Spain by M. Dupaix, with their respective Scales of Measurement and Accompanying Descriptions; the whole illustrated by many valuable unedited MSS.* The two final volumes of this work did not appear until after the death of lord Kingsborough.

KINGSBURY, a s.e. co. of Dakota, intersected by the Dakota river; 600 sq.m.

KINGSLEY, CALVIN, D.D., LL.D., 1812–70; b. N. Y.; graduated at Allegheny college in 1841, and in the same year was appointed professor of mathematics in that institution; afterwards Methodist Episcopal pastor at Meadville and Erie, Penn.; in 1856 and 1860 elected editor of the *Western Christian Advocate* at Cincinnati; in 1864 elected a bishop of the Methodist church. In 1869 he was sent upon an episcopal tour to different foreign countries, and died at Beirut, Syria.

KINGSLEY, HENRY, 1830–76; brother of Charles; was educated at Oriel college. Returning to England in 1858 from Australia, he published his first novel, *Recollections of Geoffrey Hamlyn*, which was followed by a number of others.

KINGSLEY, JAMES LUCE, LL.D., 1778–1852; b. Conn.; graduated at Yale college in 1799; was tutor there from 1801—5, librarian from 1805, and professor of Hebrew, Greek, Latin, and ecclesiastical history from 1805. Among his works are a *History of Yale College*; a *Life of President Stiles*; and editions of *Tacitus* and *Cicero de Oratore*. He was an accomplished scholar and writer, and contributed many valuable articles to the periodical literature of his time.

KING'S MOUNTAIN, BATTLE OF. This range, which crosses the border line between North and South Carolina, in Gaston and York counties, has given its name to an important battle of the revolution, Oct. 7, 1780. The British were commanded in this action by lieut.col. Ferguson, and the Americans by col. Benjamin Cleveland, the latter being the "mountain men" of Georgia and the Carolinas, while the opposing force was composed partly of regulars and partly of tory recruits, a most desperate class of men. The engagement took place on an elevation, a spur of the mountain range, and resulted, after an hour's hard fighting, in the total defeat of the British, whose commander was killed. The Americans captured nearly the entire force, the result having an important effect in determining the conclusion of the war in the southern states. The centennial of this battle was celebrated in the neighborhood of King's mountain, Oct. 7, 1880.

KINGSTON (*ante*), a city, capital of Ulster co., N. Y., on the n. bank of Rondout creek; the e. terminus of the New York, Kingston and Syracuse, and the Wallkill Valley railroads, which are connected with the Hudson River railroad by a steam ferry to

Rhinebeck, on the e. side of the Hudson; pop. '80, 18,342. Kingston was incorporated as a city in 1872, its boundaries being extended so as to include the villages of Rondout and Wilbur. It was chartered by gov. Stuyvesant under the name of Wiltwick in 1661, was first settled in 1665, and incorporated by patent in 1667. The first constitution of the state was adopted here, April 20, 1777. The legislature assembled here in Sept. of that year, but dispersed, Oct. 7, on the approach of a British force under sir Henry Clinton, which afterwards burnt the town. It was soon rebuilt, and in 1805 was incorporated as a village. Rondout, now a part of the city, was incorporated in 1849. Kingston receives an immense amount of coal annually by the Delaware and Hudson canal, and ships to New York vast quantities of stone, brick, lime, and lumber. It has a front of 4 m. on the Hudson, and does a large business in grain, flour, etc. Nearly 50 steamers are owned in the city, and the largest manufactory of cement in the United States is here. It has 24 churches, 1 daily and 4 weekly newspapers, 5 national and 3 savings banks; carriage manufactories, iron foundries, and machine shops; 4 lines of steamers for carrying passengers; excellent city and county buildings; and schools and seminaries of a high order.

KINGSTON, ELIZABETH CHUDLEIGH, Duchess of, 1720-88; daughter of col. Chudleigh, governor of Chelsea college, England. Her father died when she was a child, leaving his family in poverty. Her remarkable beauty as a girl led to her appointment as maid-of-honor to the princess of Wales, mother of George III. She was privately married in 1744 to capt. Hervey, a grandson of the earl of Bristol, but refused to live with him, and for many years led a dissolute life. In 1769 the duke of Kingston, ignorant of her former marriage, took her to wife, and upon his death in 1773 she succeeded to his immense fortune. An attempt was made by the duke's relatives to set aside the will on the ground of bigamy, of which offense she was declared guilty by the house of lords in 1776; but her right to retain the property was conceded upon the ground that she received it by bequest. She died near Paris.

KING WILLIAM, a co. of Virginia, lying between the Mattapony and the Pamunkey rivers, about 30 m. n.e. of Richmond; 260 sq.m.; pop. '80, 8,748. The surface is uneven, but the soil is generally fertile, producing grain and tobacco. The Richmond and Chesapeake railroad passes through the county. Capital, King William Court-house.

KINNEY, a co. of Texas, bounded on the s.w. by the Rio Grande river; 1400 sq.m.; pop. '70, 1204. The soil is not well adapted to agriculture, but affords good pasturage. Water is scarce. Stock-raising is the chief occupation of the inhabitants. Capital, Fort Clark.

KINNEY, WILLIAM BURNET, 1799-1880; b. N. J.; descended of English ancestry in a line eminent for its talents, position, and influence, was designed by his parents for military life, but his love of letters led to a change of purpose. He studied law with Mr.—afterwards chief-justice—Hornblower; edited the *New Jersey Eagle*, in Newark, 1820-25; studied law and medicine in New York in 1825; and was one of the founders of the mercantile library. Made a public profession of religion, and began the study of theology, with a view to the ministry. His health being impaired, he returned to Newark in 1830, and devoted himself to literary and educational pursuits; was one of the founders of the Newark public library; took an active part in promoting the establishment of the American lyceum, and the introduction of the system of free schools into the state. He undertook the management of the *Newark Daily Advertiser*, which he edited for many years with great ability; received in 1836 the honorary degree of master of arts from Princeton college, of which in 1840 he was elected a trustee. In 1850 he was appointed by president Taylor minister-resident at the court of Sardinia, where he rendered important aid to Cavour and his court in establishing the liberal institutions of Italy. Upon the expiration of his term of office he retired to Florence, in order to be with friends devoted to literature and art, among whom were the Brownings and the Trollopes, with Hiram Powers and other American artists. Returning home after the close of the late war, he devoted himself to the preparation of the material he had for many years accumulated for a history of Tuscany and the Medici family, but did not live to complete the work. Mr. Kinney was a man of splendid intellectual powers, of high literary culture, a brilliant conversationalist, and though at one time skeptical through the influence of German rationalism, possessed in after-life a firm belief in the Christian religion.

KIO'TO. See MI'AKO.

KI'OWA, a s.w. co. of Kansas. The Arkansas river and the Atchison, Topeka and Santa Fé railroad pass through it; 900 sq. miles. The soil produces good pasturage.

KI'OWAS, or Kioways, an Indian tribe of the Shoshone family, numbering about 2,000, living upon a reservation in the Indian territory, but not yet civilized. They are very warlike and intractable, and have given the U. S. government much trouble.

KIP, WILLIAM INGRAHAM, D.D., b. N. Y., 1811; graduated at Yale in 1831; ordained deacon in the Protestant Episcopal church in 1835; was rector of St. Peter's, Albany, 1838-53, and in the latter year elected bishop of California. Among his works are *The Lenten Fast*; *Early Jesuit Missions in North America*; *Christmas Holidays in Rome*; *Domestic and Religious Life in Italy*; and *The Catacombs of Rome*.

KIPPIS, ANDREW, D.D., 1725-95; b. Nottingham, Eng. He was educated in the theological seminary of Dr. Doddridge at Northampton, and for several years was a Unitarian pastor at Boston in Lincolnshire and Dorking in Surrey. In 1753 he removed to London and became minister of the Unitarian chapel of Prince street, Westminster. In 1763 he accepted the position of master of Coward's theological seminary; he held also a similar place in the Unitarian institution at Hackney. His most important works are his *Biographia Britannica* (5 vols.) and a *Life of Capt. James Cook*. He edited the works of Dr. Nathaniel Lardner and Dr. Doddridge.

KIPTCHAK', or KAPTCHAK, a race of Tartars or Mongolians, who gave name to a khanate founded in the 13th c., extending from the Jaxartes in Turkistan to the limits of Russia proper, and comprising all the region n. of the Caucasus traversed by the rivers Dnieper, Don, Volga, and Ural. Parts of this region, known as Kazan, Astrakhan, and Crimea, became independent in the 15th c. and were subsequently annexed to Russia.

KIRBY, EDMUND, 1840-1863; b. N. Y.; graduated at West Point in 1861, and was at once assigned to the duty of drilling volunteers in Washington. When the army moved he was assigned to Ricketts's battery, of which he assumed command after Ricketts was taken prisoner in the battle of Bull Run. He was engaged successively at Ball's Bluff, in the Virginia peninsular campaign of 1862, fighting bravely at Yorktown, Fair Oaks, Malvern Hill, etc., and in the Rappahannock campaign at Fredericksburg and Chancellorsville. In all the battles of these campaigns he displayed a coolness, skill, and courage remarkable in one so young. At Chancellorsville he received wounds which caused his death in Washington, May 28, 1863. As a tribute to his gallantry he was appointed on his death-bed a brig.gen. of volunteers.

KIRCHER, ATHANASIUS, 1602-1680; b. Guysen, near Fulda; entered the order of the Jesuits at an early age, educated at the university of Würzburg, where he afterward, taught philosophy and the oriental languages. At the commencement of the thirty years' war he returned to France, and spent two years in the Jesuits' college at Avignon, occupied entirely in the study of antiquities. By advise of the learned Peiresc he applied himself with great zeal to the task of deciphering the Egyptian hieroglyphics. He was preparing to return to Germany as professor of mathematics at Vienna, to which he had been appointed, when he received an order to repair to Rome, which he obeyed. In 1637 he was charged by the pope to accompany cardinal Frederick of Saxony to Malta, and was received with great honor by the knights of St. John. Having visited Sicily and the kingdom of Naples, he took the chair of mathematics in the Roman college, which he filled for eight years. In his researches and experiments he received liberal aid from German, Italian, and Spanish princes and nobles, and also collected a splendid museum of antiquities, which he left to the Roman college. He was a man of extensive and varied but ill-digested erudition, and a copious writer on mathematics, physics, philology, hieroglyphics, history, and antiquity. He had a vast memory and untiring perseverance, but he lacked judgment and critical skill; his theories are often fanciful, and he self-complacently believed that he could solve any question however difficult. Of his numerous works the most important are: *Prodromus Coptus sive Aegyptiacus*; *Latium*, with maps and figures; *Institutiones Grammaticales et Lexicon Copticum*; *China Illustrata*; *Mundus Subterraneus*; *Cetipus Aegyptiacus*. The most valuable are those relating to the Coptic and Egyptian tongues, and his *Latium*, which, with its maps and plans, is interesting and instructive.

KIRCHHOFF, GUSTAV ROBERT, b. Königsberg, Germany, 1824; educated at the university of his native place; lectured on physics at Berlin in 1848, and at Breslau in 1850. In 1854 he was appointed professor of natural philosophy at Heidelberg. His researches in several branches of physical science have been of great value, but his principal achievement is the discovery of the spectroscope, which he made in connection with Bunsen, and its application for the spectrum analysis, so important in the study both of chemistry and astronomy. His writings upon these subjects are highly prized.

KIR'IN, or GIRIN, the largest province of Mantchooria, belonging to the Chinese empire. It is bounded n. by the Amoor and Soongaree rivers, e. by the Osooree river and the Japan sea, s. by Corea and China proper, and w. by China proper and Mongolia; about 200,000 sq.m.; pop. about 500,000. Its capital, of the same name, is a large town on the Soongaree, and the residence of the viceroy.

KIRK, EDWARD NORRIS, D.D., 1802-74; b. New York, d. Boston. He graduated at Princeton in 1820, and, after studying law for 18 months, entered the theological school at the same place, graduating in 1825. He was employed for some time as an agent of the American board of commissioners for foreign missions, and in 1828 became pastor of a newly organized Presbyterian church in Albany, N. Y. Here he remained until 1837, when ill-health compelled his resignation. He visited Europe, preaching in London and Paris, and in 1839 returned to the United States to accept the position or secretary of the American and foreign evangelical society. In 1842 he became pastor of the newly organized Mt. Vernon Congregational church in Boston, where he preached until 1871, when ill-health compelled him to retire from active service and accept the assistance of a colleague. In 1856 he visited Paris, as an agent of the American and

foreign Christian union, to establish Protestant worship there. His style of preaching was fervent and pungent, and he was unusually successful in developing and directing what are known as revivals. As a pastor he was eminently faithful. In the later years of his life he was almost entirely blind, but this did not hinder his attendance upon religious meetings, where he took an active part in discussing themes of popular and practical interest. He received the degree of D.D. from Amherst college, and at the time of his death was president of the American missionary association. He published two volumes of sermons and a volume of *Lectures on the Parables*, and wrote several short works issued by the American tract society in Boston. He also translated Gausen's *Théopneustie*, a treatise on the inspiration of the Bible. He was never married.

KIRK, JOHN FOSTER, b. New Brunswick, 1824, and educated in Nova Scotia; removed to the United States at the age of 18 years, and five years later became private secretary to William H. Prescott, the historian, a position which he held until the latter's death in 1859. Between 1862 and 1868 Mr. Kirk published his *History of Charles the Bold*. He also edited an edition of Prescott's works, and has written numerous historical papers for periodicals. Since 1871 he has been the editor of *Lippincott's Magazine*.

KIRKALDY, Sir WILLIAM, OF GRANGE, son of James Kirkaldy; b. in Scotland early in the 16 c.; died 1573; was one of the earliest Protestants of Scotland; joined the conspiracy against cardinal Beaton in 1546; was imprisoned, but escaped to France, where he distinguished himself in the service of Henry II. In 1559 he returned to Scotland, where he took part in the movement against Mary queen of Scots; was in the battle of Carberry Hill, where he narrowly escaped being killed by Bothwell, whom he pursued to the coast of Norway; aided in Mary's defeat at Langside, and was made governor of Edinburgh castle in 1568; afterwards espoused the cause of Mary, and defended the castle in her interest, 1570-73, against the attacks of marshal Berwick; but surrendered in the latter year, and with several of his followers was hung in Edinburgh.

KIRKBRIDE, THOMAS S., LL.D., b. Penn., 1809. He graduated at the university of Pennsylvania, 1832, and became resident physician to the Friends' asylum for the insane at Frankford. In 1833 he was appointed physician to the insane hospital at Philadelphia. Upon the establishment of the new Pennsylvania hospital for the insane in 1850, he was made its first superintendent. He has published *Rules and Regulations of the Pennsylvania Hospital for the Insane; Constitution, Organization, and General Management of Hospitals for the Insane; Appeal for the Insane*. In 1859 an insane hospital was built for Dr. Kirkbride on his own plan, with separate departments for the sexes, and he assumed control of the female department.

KIRKE, Sir DAVID, 1596-1656; b. in France, where he engaged in business as a wine merchant till the persecution of the Huguenots drove him back to England, where his father had emigrated. In 1627 he was placed at the head of an expedition sent out from England to attack the French settlements in Canada. In the discharge of this duty he blockaded Quebec, and took a French squadron prisoner. He again laid siege to Quebec in 1629, and forced it to surrender. For these services he was knighted and received a grant of lands in Newfoundland of which he was dispossessed in the time of Cromwell.

KIRKES, WILLIAM SENHOUSE, 1820-64. He was resident physician to St. Bartholomew's hospital, London. He published in 1848 a *Handbook of Physiology*, and from time to time a series of papers on the *Detachment of Fibrinous Deposits from the Interior of the Heart*. These papers contain much interesting matter in regard to what is known by pathologists as embolism.

KIRKLAND, CAROLINE MATILDA, 1801-64; b. N. Y.; wife of prof. William Kirkland of Hamilton college, with whom she emigrated to Michigan in 1839, that state having been admitted to the union only two years before. Here she doubtless obtained the inspiration for her first writings: *A New Home, Who'll Follow?; Forest Life; and Western Clearings*. These works were published under the pseudonym of "Mary Clavers." In 1843 prof. Kirkland removed his family to New York, where Mrs. Kirkland established a private school for young ladies, which met with success. In 1849, after her return from Europe, she published *Holidays Abroad, or Europe from the West*; and, at intervals thereafter, *The Evening Book, or Fireside Talk on Morals and Manners; A Book for the Home Circle; The Book of Home Beauty*, to accompany a series of engraved portraits of American women; and *Personal Memoirs of George Washington*. Mrs. Kirkland was enthusiastic and earnest in whatever she undertook, and to the over-exercise of these qualities she owed her death, which resulted from her continuous and severe labors in connection with the great metropolitan fair, held in New York in April, 1864, in behalf of the union defense committee, and the cause of the union during the war of the rebellion.

KIRKLAND, JOHN THORNTON, D.D., LL.D., 1770-1840; son of Samuel Kirkland, missionary to the Indians; b. N. Y.; graduated at Harvard college, 1789; ordained pastor of the Congregational church, Summer street, Boston, in 1794; was elected president of Harvard college in 1810, and retained the office until 1828, when he was stricken with paralysis. The college was very prosperous under his administration. He was dis-

tinguished for vigor of intellect, practical sagacity, and great energy. He published several pamphlets and some biographies. His *Life of Fisher Ames* is valuable.

KIRKLAND, SAMUEL, 1744-1808; b. Conn.; graduated at Princeton in 1765; ordained a Congregational minister in 1766. He was for some time a missionary among the Six Nations, and in 1775 was employed by the state of Massachusetts as an agent to secure their favor or neutrality in the revolutionary war, in which attempt he did not fully succeed. He was an army chaplain during the revolution. He founded the academy in which Hamilton college had its origin. In 1789 the government gave him a tract of land 2 m. square in what is now known as the township of Kirkland, Oneida co., N. Y. Died at Clinton, N. Y.

KIRKWOOD, DANIEL, LL.D., b. Md., 1814. He was teacher of mathematics in the academy of York co., Penn., from 1838 to 1843, when he was appointed principal of the Lancaster high school, where he remained until 1848, resigning then to accept a position in the Pottsville academy. In 1849 he brought to the notice of the American association for the advancement of science at Cambridge, and the American philosophical society at Philadelphia, his then recently discovered analogy between the periods of rotation of the primary planets. In 1851 he was appointed professor of mathematics in Delaware college, and in 1854 he was chosen president of the same institution. He served in this capacity until 1856, when he resigned to take the chair of mathematics in the university of Indiana at Bloomington. His researches in regard to the nebular hypothesis have attracted wide attention among scientific men. Prof. R. A. Procter says: "I believe they will inaugurate new and important processes of thought, by means of which the noble and hitherto intractable problems connected with the formation of the solar system may be found capable of solution." Prof. Kirkwood has published *Comets and Meteors: their Phenomena in all Ages, and their Mutual Relations and the Theory of their Origin*. He received in 1852 the degree of LL.D. from the university of Pennsylvania.

KIRKWOOD, SAMUEL J., b. Md., 1813; educated at Washington, admitted to the bar in Ohio in 1843. He served four years as prosecuting attorney of Richland co., and was a member of the state constitutional convention of 1850. In 1855 he removed to Iowa, where he was elected to the state senate in 1856. From 1860 to 1863 he was governor of the state, distinguishing himself by his efforts to support the national government in the time of the southern rebellion, and to provide for the comfort of the soldiers of Iowa in the union armies. In 1867 he was elected to the U. S. senate to fill the unexpired term of James Harlan, and in 1875 was again elected governor.

KIRTLAND, JARED POTTER, LL.D., 1793-1877; b. Conn. Educated by his uncle, a distinguished physician, he early showed a disposition for analytical research. When a boy of 16 his study of botany led him to experiments in the cross-fertilization of flowers for the artificial production of new varieties of fruit, and his study of insect life was so minute that he was one of the first to discover the hermaphrodite character of the female silkworm, which led to the study of the metamorphosis of insects. In 1810 his father moved to Ohio and these studies were interrupted; but he taught school, and became an accomplished botanist. In 1811, his uncle having bequeathed him his library in Wallingford, and money to complete an education, young Kirtland went to the medical school of Edinburgh, Scotland, in 1815. In 1818 he removed to Ohio to practice his profession, taking a high position in it, but always better known by his scientific attainments. In 1828, in the Ohio legislature, he led the reform movement that changed the discipline of penitentiaries. From 1837 to 1842 he was professor of medicine in the Ohio medical college of Cincinnati, and afterwards for many years filled similar positions in the Willoughby and Western Reserve medical colleges of northern Ohio. In the first geological survey of Ohio in 1848 he was engaged on the natural history department. The range of Dr. Kirtland's investigations was great, though he has not left by authorship such monuments of his scientific industry as might have been expected. In 1834 he discovered and announced the existence of distinct sexes among the *naiades*. His contributions to our knowledge of the honey-bee have been great and form the basis of much that has been written by others. In the cross-fertilization of fruits his boyish experiments, continued through life, were in part so practically successful that several of the most valuable varieties of cherries now in cultivation in this country and Europe were originated under his hand. He died in Cleveland, Ohio.

KIRWAN, RICHARD, an eminent chemist of Ireland; b. probably within the first quarter of the 18th century. At an early age he was sent to a Jesuit college in France to study law or medicine. While there he came into possession of the family estate by the death of his elder brother. He then devoted himself to his favorite studies of chemistry and geology. In 1779 he removed to England, settled in London, and was admitted to the royal society, before which he read many important papers, for which he received in 1781 the Copley gold medal. In 1789 he returned to Ireland, was made president of the royal Irish academy and of the Dublin society, and published several essays on his own special branches, and on logic and metaphysics. He was regarded as the Nestor of English chemistry. He died at an advanced age in 1812. In one of his earliest works, *Essay on Phlogiston and the Composition of Acids*, he attempted to reconcile the old chemistry with modern discoveries. It was answered by the French chemists,

and Kirwan abandoned his views of phlogiston and adopted those of his opponents. His other works were *Elements of Mineralogy*; *Geological Essays*; *Essay on the Analysis of Mineral Waters*.

KIRWAN, WALTER BLAKE, 1754-1805; b. Galway, Ireland; was educated at the college of the English Jesuits at St. Omer; ordained priest; appointed professor of natural and moral philosophy at Louvain; became a Protestant in 1787, and was minister of St. Peter's church, Dublin; prebendary of Howth; dean of Killala in 1800. He was a man of uncommon eloquence; and so great were the throngs where he preached that the police had to defend the entrance of the church with guards and palisades. He was often invited to preach charity sermons, and the contributions were seldom less than £1000. These addresses have been published, with a sketch of his life.

KISCHINEFF', or KISCHENAW. See KISHENAU, *ante*.

KISH'ON, a river or winter stream of central Palestine, which rises in the valley of Jezreel, near the foot of Mt. Tabor, and, after running westward with many windings through the plain of Esdraelon, falls into the Mediterranean at the s.e. corner of the bay of Acre. It is noted in Scripture as the scene of two remarkable events—the overthrow of the host of Sisera in its waters, and the destruction of the prophets of Baal. Its upper portion is dry most of the year, the perennial stream forming but a small part of the river, and confined to a few miles near the sea. In the rainy season the water which falls on the eastern side of the mountain empties into the Kishon in torrents, when it overflows its banks, acquires a wonderful rapidity, and sweeps all before it. Such was, no doubt, its condition when Sisera's host was overwhelmed in it. The modern representative of this river is *Nahr Mukätta*, a drain which carries to the Mediterranean the waters of the plain of Esdraelon and of the mountains inclosing it.

KIS'SINGEN (*ante*). Kissingen is a walled town. It contains five mineral springs. *Pandur*, discovered in the 16th c., has a temperature of 50°, used for bathing. It is saline and chalybeate. The *Rakoczy* spring was discovered in 1737. It has a temperature of 52°, and is used for drinking. Liebig's analysis of its waters is as follows: 16 oz. contain 0.242 gr. of carbonate of iron; 0.131 gr. of carbonate of magnesia; 8.148 grs. of carbonate of lime; 0.043 gr. of phosphate of lime; 0.099 gr. of silica; 2.990 grs. of sulphate of lime, or gypsum; 44.713 grs. of chloride of sodium, or common salt; 4.509 grs. of sulphate of magnesia, or Epsom salts; 2.203 grs. of chloride of potassium; 2.333 grs. of chloride of magnesium; 0.064 gr. of bromide of sodium; 0.071 gr. of nitrate of soda; 0.153 gr. of chloride of lithium; 0.007 gr. of carbonate of ammonia; and 41.77 cubic in. of carbonic acid gas. Total solid mineral ingredients. 65.706 grs. The objectionable ingredient in this water is sulphate of lime, which constitutes nearly one-fifteenth of all the mineral matter held in solution. Sulphate of lime possesses poisonous properties when taken internally in any considerable quantity, and is injurious and irritating as an outward application, as those who work in plaster of Paris can testify. The *Maxbrunnen* has a temperature of 50°; *Theresa*, 50°. These are alkaline, carbonated waters. The *Soolen-Sprudal* has a temperature of 68°, and is used for bathing. A little to the n. of the town there is an artesian well 2,000 ft. deep, from which, by the action of carbonic acid gas, a column of water 5 in. in diameter can be thrown 70 ft. high. This water is forced down into a bed of rock salt, from which it issues into a reservoir which flows into the salt-pans in the boiling house, where a beautiful fine white salt is manufactured. Kissingen has from 10,000 to 12,000 visitors every year. The Prussians, in 1866, gained a victory over the Bavarians at this place, and it was here also that an attempt upon the life of Bismarck was made by a cooper named Kullmann, July 13, 1874.

KITCHEL, HARVEY DENISON, D.D., b. N. Y., 1812; graduated at Middlebury college in 1835; studied theology in New Haven; was settled as a Congregational minister at Thomaston, Conn., 1839-48; at Detroit, Mich., 1848-64; and at Chicago, 1864-66; was elected president of Middlebury college in the latter year, and served until 1875, when he resigned.

KITCHEN-MIDDENS (Danish, *kjökken-mödding*), or moldering shell-mounds, the vestiges of feasts of prehistoric men of the neolithic age. They are found in northern Europe, more particularly in the Danish islands of the Baltic. They are supposed to be the accumulated refuse of annual or periodical tribal feasts. It is thought that the early races of men in all countries were in the habit, at stated times, of gathering in large numbers on the sea-shore and feasting on mollusks, fishes, and other animals, leaving the shells, bones, and some of the utensils, deposited in some order to mark the place of assemblage. Many of the implements found in the Danish mounds are carefully shaped and polished, and there are no remains of extinct animals, only those of living species; moreover, the remains of one domestic animal are found in the mounds, those of the dog, but no agricultural implements or anything to indicate the culture of the soil. Some of these mounds are 1000 ft. long, 200 ft. wide, and 10 ft. high. Other remains of the same era occur in the lower part of Danish peat formation, such as log canoes, which are supposed to have been used by the men who made the shell-mounds. It is said that the shells found in these remains are rather larger than those of

the same species found at the present time on the Danish shores, and that the mounds somewhat resemble those made by the American Indians near the sea-shore.

KITE, a frame-work of wood or other material, shaped according to the fancy of the maker, a favorite form being that of an isosceles triangle, the base of which becomes the top, and is surmounted by a piece of cane or bamboo, bent in the shape of a semi-circle. Over this frame-work is stretched paper, silk, or muslin; a tail of string, to which twisted strips of paper are fastened, acts as a steering apparatus; and a cord attached to the body of the kite, near the top, completes the mechanism and controls its movements. Kites are also round, square, oval, diamond-shaped, oblong, etc. The origin of this toy is not traced, but it is known to have existed from remote antiquity. Etymology may possibly give a clue to the origin of its name, but it fails to signify the period of its invention. It is derived from the Welsh *câl* and the Anglo-Saxon *cyla*, while the Gaelic *kyta*, meaning belly, may not improbably have been the root of the English word *kite*, from the signification of filling with wind which it indicates, as "the bellying sail." But while the kite is thus accounted for in the northern tongues, the article is found in use in many southern and even tropical countries. In China, notably, it has been a favorite toy from time immemorial; the same fact exists with regard to Japan; and in these two countries the form of the article is more diversified than elsewhere; owls, bats, dragons, and other creatures are usually copied, the material employed being silk or paper covered with painted designs in ornamentation. But besides its use as a toy, the kite has frequently been employed practically for important purposes. It has been used in engineering to carry lines to inaccessible points; and, in cases of shipwreck, has been made a medium of communication with the shore, and even to establish means of transportation, thus becoming an agency in saving life. The most important scientific use of a kite was probably that of Dr. Benjamin Franklin, who gained through its instrumentality a solution of the problem of the identity of electricity and lightning. With a design to establish the theory to this effect which he had formulated, Dr. Franklin constructed a kite. The frame-work consisted of a cross made of two light strips of cedar; over this was stretched a silk handkerchief, tied to the four extremities; a sharp-pointed wire extended a foot from the top of the upright stick of the cross, a silk ribbon was tied to the end of the string which held the kite, the end next the hand, and a key suspended at the junction of the twine and silk.

The kite was raised by Franklin, assisted by his son, during a thunder-storm in June, 1752, and almost immediately he had the satisfaction of experiencing a spark on applying his knuckles to the key; and when the string had become wet by the passing shower, the electricity became abundant. A Leyden jar was charged at the key, and by the electric fire thus obtained spirits were inflamed, and all the customary experiments performed. This important testimony to the truth of Franklin's deductions aroused the scientific minds of Europe to consideration of the question. He was highly honored by scientific bodies, and the royal society awarded him the Copley medal in 1753. The kite has added to the English language a species of phraseology peculiarly indicative of its own characteristics. Such terms as "kiting," "kite-flying," and "higher than a kite," though not elegant, are found useful on the stock exchange and elsewhere, to describe certain situations and conditions familiar to all business men.

KITSAP, a small co. in the w. part of Washington territory, being a peninsula bounded e. by Admiralty inlet, s. and s.e. by Puget sound, and n.w. by Hood's canal; pop. '70, 866. These waters are navigable for large vessels, and afford excellent facilities for trade and commerce. The surface is mostly in forest, and lumber is the chief article of export. Capital, Port Madison. Valuation of real and personal property, \$1,050,000.

KITTANNING, the capital of Armstrong co., Penn., on the Alleghany river, 44 m. n.e. of Pittsburg. The Alleghany Valley railroad passes through it. It has 8 churches, 2 national banks, 4 weekly newspapers, a rolling mill, a woolen mill, several oil refineries, and other manufactories. Pop. 1889.

KITTATINNY, or **BLUE MOUNTAIN**, a chain about 800 m. in length, and averaging in height from 1000 to 2,000 ft., whose northern point is in Ulster co., N. Y. Trending to the s.w., it is pierced by the Delaware at the water-gap, by the Susquehanna near Harrisburg, and by the Potomac in the neighborhood of Berkeley Springs, W. Va., and thence extends through North Carolina and Tennessee to Alabama, in which state its elevation lessens and it is finally lost.

KITTERY, a village of York co., Me., on the Piscataqua river, opposite Portsmouth, N. H., and on the Portsmouth, Saco, and Portland railroad, about 4 m. from the ocean. It is in a township of the same name, which forms the s.w. extremity of Maine. Its chief industries are ship-building, the fisheries, and the coasting-trade. The United States has a navy-yard here. The township has 7 churches and a population of 3,333.

KITTREDGE, **THOMAS**, 1746-1818; b. in Andover, Mass., in 1746; studied at Byfield academy under Samuel Moody, and at Newburyport with Dr. Sawyer; was surgeon in the battle of Bunker Hill, and received the degree of M.D. from Harvard college in 1811. He entered into practice in Andover in 1768, and died there after a residence of 50 years.

KIUKIANG. See **KEW-KIANG**.

· **KIUN, KEN, or CHIUN**, a goddess in the Egyptian mythology, answering to the Roman Venus. She is represented standing on a lion's back, and holding in one hand a flower, and in the other two serpents. Reference to this deity is made in Amos v. 26, —“But ye have borne the tabernacle of your Moloch and Chiun your images, the star of your god, which ye made to yourselves.”

KIU'SHIU', or **KIUSIU**, or **XIMO**, the third largest island of the Japan archipelago. The name comes from *kiu*, nine, and *shiu*, provinces. In the Jesuits' letters and in old books it is called *Ximo*, a corruption of *shima* “island.” The nine provinces of Kiushiu are Satsuma, Ōzumi, Hiuga, Higo, Hizen, Bungo, Buzen, Chikugo, and Chikuzen. Together they form the Saikaido, or western sea region (see JAPAN). Since 1874 Kiushiu has been governmentally divided into ken, or prefectures, having their seats and receiving their names, with one exception, from the chief large cities of the island, viz.: Kagoshima, Nagasaki, Kumamoto, Fukuoka, and Oita. The area of Kiushiu by official computation taken in 1877 is 13,871 sq.m.; and that of the outlying islands near the coast, Tsu, Goto, Yaku, Tané, etc., is 1513 sq. miles. Pop. 5,000,000. See titles of cities and provinces.

KIWI-KIWI. See **APTERYX**, *ante*.

KIZIL-IRMAK. See **HALYS**.

· **KLADNO**, a t. of Bohemia, 15 m. w.n.w. of Prague. It has iron-works and mines of iron and coal. Pop. 10,707.

· **KLAM'ATH**, a river in n.w. California, rising in Jackson co. in the southern extremity of Oregon, flows through the upper and lower Klamath lakes, and crosses the frontier line into California. It runs south-westward, through Siskiyou, Del Norte, and Klamath counties, to the mouth of the Trinity river in the n.e. extremity of Humboldt county. After watering a greater part of Klamath co. it flows n.w. from the mouth of Trinity river, and empties into the Pacific ocean between the counties of Klamath and Del Norte in lat. 41° 30' north. It is 275 m. in length. At low water a bar in the harbor impedes the progress of any but the lightest boats; at high water there is sufficient depth for ships of the line. It is navigable for 40 m. by steamers of light draught. It is a rapid river, flowing through deep and narrow cañons, where, among the mountains, gold has been found in considerable quantities. The adjacent country is well covered with forests of redwood, fir, and cedar. A few miles from its mouth is the town of Klamath.

KLAM'ATH, a co. in n.w. California, which has the Salmon mountains for its eastern boundary, Scotts mountains on the s.e., the Pacific ocean on the w., and the Klamath river on the extreme n.w. It is drained by the Klamath river, with its branches flowing through it from the n. where it rises in Oregon, and from the s. through the valleys, emptying into the ocean; 2,000 sq.m.; pop. '70, 1686—542 Chinese. The mountains are covered in some sections with extensive forests of timber, and groves of cedar, redwood, and fir. The hills afford good pasturage, and in the valleys the soil is fertile and adapted to wheat; other products are oats, potatoes, and hay. A part of the Klamath Indian reserve, that extends into Del Norte county, occupies the extreme northern portion. There are two quartz-mills and two saw-mills; the former are employed in the gold mines, which are worked extensively on the banks of the Klamath, Trinity, and Salmon rivers, at Gold Bluff, and near the Pacific shore. Seat of justice, Orleans Bar.

KLAM'ATHS, a group of Indian tribes, scattered along the course of the Klamath river, which rises in southern Oregon, and flows s.w. and n.w. until it empties into the Pacific ocean in lat. 41° 30' north. These tribes include the Shastas, Modocs, Cahrocs, Eurocs, Pitt river Indians, Hoopahs, Wallies—all of these being collectively and contemptuously called “Digger Indians.” Of the same family, but characterized by much finer qualities than the other tribes, are the Klamaths proper, known also as Hamati or Clamets, but designated among themselves by the name Luterami; they live near the upper and lower Klamath lakes. These Indians are well made, with good features, the women sometimes quite handsome. They make baskets, hammocks, mats, hats, and other useful articles. Since 1864 the Klamaths have been collected on a reservation by treaty with the United States, but have dwindled in numbers until only a few hundred of them remain. Of the Klamath groups the Modocs became familiar to us in 1872-73 by the war occasioned by a portion of them, under the chief capt. Jack, leaving the reservation—a breach of the treaty with the U. S. government. Latterly the Klamaths have devoted themselves to cutting lumber, creating quite an industry.

· **KLAPROTH, MARTIN HEINRICH**, 1743-1817; b. Saxony; an analytical chemist of distinction and ability. The value of the improvements which he introduced into practical analysis can hardly be overrated, as he completely revolutionized the science of mineralogy through his discoveries in this direction. He is noted among scientists as the discoverer of tellurium, titanium, zirconium, and uranium among metals. He was a faithful and earnest advocate of Lavoisier, as to the latter's theories and discoveries. Klaproth received many honors, being a member of the institute and professor of chemistry in the university of Berlin, besides being a member of the royal academy of arts

and of the royal Berlin academy of sciences. He was also professor of chemistry in the royal mining institute.

KLEIST, HEINRICH VON, 1776-1811; b. Frankfort-on-the-Oder; a poet and novelist. Abandoning the study of law he engaged in the Prussian civil service, which he relinquished for literature. He fought in the Prussian army against France, and was imprisoned during the French occupation of Berlin. Disappointed in his hopes and plans he committed suicide in 1811. He was one of the most original of German poets, Gervinus placing him above all the dramatists of his time. Among his works, including dramas, lyric poems, novels, and tales, the most important are: *The Prince of Homburg*; *The Battle of Hermann*; *Michael Kohlhaas*.

KLEMM, FRIEDRICH GUSTAV, 1802-69; educated at the university of Jena, appointed assistant librarian at Dresden, 1814, and chief librarian in 1852. He has published *The History of Bavaria*; *Women*; *Fifty Years Ago*, etc.

KLIEFOTH, THEODOR FRIEDRICH DETHELE, D.D., b. Mecklenburg, Prussia, 1810. He is the head of the old Lutheran party, and has written several books on the liturgy of the German Lutheran church, besides commentaries on the prophets Ezekiel and Daniel.

KLIKITAT, a co. in s. Washington territory, having the Columbia river for its southern and eastern boundary, separating it from Oregon; 2,400 sq.m.; pop. '70, 329. It is drained by Klikitat river, emptying into the Columbia and forming part of its western border, and by Yakima river in the n.e. In the n.w. is Mt. Adams, one of the loftiest peaks of the Cascade range, 9,570 ft. in height. Its surface presents a large area of prairie and open country, suitable for stock raising, with immense forests, and an extensive plain called the Klikitat prairie. Among the products of its soil are barley, oats, and rye.

KLIKITATS, a native American Indian word signifying *robbers*, and characteristically applied as the name of a tribe of Indians in Washington territory, distinguished for their predatory habits. This tribe, allied by blood to the Nez Percés and Walla Wallas, are distinguished only by habitat from the Yakimas, with whom they were consolidated in 1855 by the U. S. government, and placed on a reservation about Fort Simcoe, near the coast range.

KLINGER, FRIEDRICH MAXIMILIAN VON, 1753-1831; b. Frankfort, Germany; studied at the university of Giessen, and at an early age began to write plays. He served as a volunteer through the war of the Bavarian succession, and in 1780 entered the Russian service, in which he remained for 40 years, and attained the rank of lieutenant. He wrote a number of works, of which his drama, *Sturm und Drang* (Storm and Stress), is alone noteworthy as having given its name to that period of literary agitation and uncertainty which preceded the appearance of Goethe and Schiller.

KNAPP, GEORG CHRISTIAN, D.D., 1753-1825; studied at Halle and Göttingen, and in 1782 became ordinary professor of theology at Halle. The system of theology which he adopted was what is known as rational supernaturalism. His *Vorlesungen über die Christliche Glaubenslehre* (Lectures on Christian Theology) has been translated by the late Dr. Leonard Woods of Bowdoin college.

KNAPP, JACOB, 1799-1874; educated at Madison university, Hamilton, New York, and entered the Baptist ministry. He applied to the New York state Baptist convention in 1832 for an appointment as missionary, and on their declining his request he began to preach as an evangelist on his own responsibility. In this capacity he preached in all the principal towns of the United States, attracting large crowds and attaining great celebrity. In his autobiography, published in 1874, he claims to have made at least 100,000 converts in the first 12 years of his career as an evangelist.

KNAPP, SAMUEL LORENZO, LL.D., 1784-1838; graduated at Dartmouth college, 1804, and became a member of the Massachusetts bar. He was connected with various newspapers in Boston from 1824 to 1827, when he removed to New York. Among his works may be mentioned *Travels of Ali Bey* (1818); *Biographical Sketches of Eminent Lawyers, Statesmen, and Men of Letters* (1821); *Lectures on American Literature* (1829); *American Biography* (1833); and *Life of Aaron Burr* (1835).

KNAUS, LUDWIG, b. Wiesbaden, 1829; studied at Düsseldorf and Paris. He is a *genre* painter of considerable merit, excelling particularly in the delineation of rustic scenes. He was made Prussian minister of art in 1874.

KNEELAND, ABNER, 1774-1844; was first a Baptist preacher, then a Universalist, and finally a Deist. From 1821 to 1823 he edited a periodical in Philadelphia; in 1828 he edited the *Olive Branch* in New York; and in 1830 founded in Boston the *Investigator*, a weekly expositor of his deistical views, and which is still in existence. He was also for several years in Boston the instructor of a deistical society meeting in Julien hall; and in 1830, when William Lloyd Garrison had sought in vain for a church or hall in which to speak upon slavery and was about to resort to the common, Mr. Kneeland and his friends offered him the use of the hall under their control, and there his lectures were delivered. In 1836 he was tried in the supreme court of Massachusetts for blasphemy, uttered in his own paper. The words chiefly relied upon to support the charge

were: "He believes in a God, which I do not," the words being taken as a denial of God's existence. Mr. Kneeland, in his defense, declared that the comma after the word God was erroneously inserted, and that all he meant to affirm was that he did not believe in the same God that his opponent did. At the first trial the jury stood 11 for conviction and 1 for acquittal, the dissentient being Charles Gordon Greene of the *Morning Post*, now one of the oldest citizens of Boston. A second trial resulted in conviction, and Mr. Kneeland was sentenced to imprisonment for a short term in the Boston jail. His conviction was disapproved by many earnest Christian men, who thought it an infraction of the true liberty of speech and calculated to bring Christianity into reproach. The rev. Dr. Channing and other eminent citizens united in a public protest against the prosecution. There has been no prosecution under the statute since that day, though hundreds of men have avowed their disbelief in God in terms far more offensive than those used by Mr. Kneeland. Public opinion upon the just limitations of the freedom of the press has greatly changed since that day. Mr. Kneeland died at Salubria, Ind. Among his publications were: *The Deist*; *Lectures on Universal Salvation*; *A Translation of the New Testament*; and *A Review of the Evidences of Christianity*.

KNEELAND, SAMUEL, b. Mass., 1821; studied at Harvard university, graduating from the medical school in 1843; studied medicine two years in Paris. Returning, he commenced the practice of medicine in Boston, also lecturing on anatomy in Harvard university. He contributed at that time to the *American Journal of Medical Science* and *Boston Medical and Surgical Journal*, and translated Audry's *Diagnosis of Diseases of the Heart*. He was five years secretary of the Boston historical society, and for two years in the same capacity in the American academy of arts and sciences. In 1866 he became secretary of the Massachusetts institute of technology, and a professor there. He has traveled extensively in Brazil, has visited Iceland, the Hawaiian islands, and the copper region around lake Superior, besides exploring other interesting regions—California, upper Mississippi, and Colorado. In the war of the rebellion he went out, in 1862, as a regimental surgeon under gen. Burnside, and also served in New Orleans and Mobile. In 1866 he accepted the position of secretary of the Massachusetts institute of technology, and also the chair of professor of zoology and physiology, which he now fills. He edited, with an introduction, Smith's *History of the Human Species*, 1851, and the *Annual of Scientific Discovery*, 1866-69, and contributed to the scientific periodicals. He was one of the writers on zoological and medical subjects in the *American Cyclopædia* and the *New American Cyclopædia*, furnishing over 800 articles. He published the *Wonders of the Yosemite Valley and of California* in 1871.

KNIAZ'NIN, FRANCISZEK DYONIZY, 1750-1807; educated in the Jesuit school at Vitebsk, in Russia, and for a time secretary to prince Adam Czartoryski. He was a poet of decided merit, many of his verses showing a refined sentiment, and remarkable skill in versification. He translated the Latin poets, and even ventured on a translation into Russian of Macpherson's *Ossian*. The latter years of his life were clouded by mental derangement.

KNIEBIS MOUNTAINS, on the borders of Württemberg and Baden, opposite Alsace. They are a part of the lower Black Forest range, and in them are situated the well-known watering-places, Griesbach and Freiersbach.

KNIGHT, RICHARD PAYNE, 1750-1824; b. England; being a weak and sickly child, received no education until he was 14 years of age, when he was sent to school, and soon made marked progress in Greek and Latin. He visited Italy for his health, where he interested himself in the study of art and of classical antiquities, which with him became a passion. Having inherited large wealth, he was returned to parliament, and served from 1780 to 1806, when he retired, devoting the remainder of his life to study and authorship in the direction of recondite classical subjects. From 1814 he represented the Townley family as a trustee of the British museum. To this institution he bequeathed his splendid collection of ancient bronzes and Greek coins, valued at £50,000. He published *An Account of the Remains of the Worship of Priapus lately existing at Isernia, in the Kingdom of Naples*, etc.; *An Analytical Essay on the Greek Alphabet*; *An Analytical Inquiry into the Principles of Taste*; and an edition of Homer's *Iliad* and *Odyssey*, with prolegomena. He also wrote and published several poems, which added little to his fame. He was a close and intelligent interpreter of the meaning of ancient rites and customs.

KNIGHT, THOMAS ANDREW, 1758-1838; b. Herefordshire, England; graduated at Balliol college, Oxford; devoted himself to researches into vegetable and animal physiology. In 1795 he communicated to the royal society suggestions upon the inheritance of disease among fruit-trees, and upon the propagation of debility by grafting, which attracted much attention. His publications are: *A Treatise on the Culture of the Apple and Pear*, and on the *Manufacture of Cider and Perry*; *Pomona Herefordiensis, or Natural History of the old Cider and Perry Fruits of the County of Hereford*. After his death were published his *Physiological and Horticultural Papers*, with an instructive sketch of his life. He was president of the horticultural society after sir Joseph Banks. The progress of horticulture for the last half century is due largely, if not mainly, to his

writings and practice. He is considered the best practical gardener of his day. He was a close observer, too, of the habits of animals, and one of his last papers to the royal society was on animal instinct.

KNIGHTS (*ante*). According to Tacitus, the origin of knighthood was among the ancient German tribes, and consisted in conferring upon selected persons the privilege of citizenship, under the direct supervision of the authority of the state. The ceremony included the investiture of the candidate with a buckler and javelin, and appears to have implied that, whereas he was before only a member of his immediate family, he now became a servant, or *eniht* (Saxon), of the state. But both the institution and the ceremony have been traced back as far as the foundation of Rome, when Romulus is said to have created the rank, the *curie* electing 300 *equites*, as they were called, from *equus*, a horse. In England king Alfred is said to have been the first to create a knight with the sword of state, in the case of Athelstane, A.D. 900. In the time of Henry III. of England the institution seems to have been based on a property qualification, since all persons possessed of ten pounds yearly income were forced to be knighted under penalty of a fine. The institution of knighthood as an order was, generally speaking, an event of the middle ages, and grew out of the disturbed condition of society, and the necessity for the weak to be protected by the strong. The feudal barons were at this time mostly marauding robbers, whose hands were against all men, and who particularly devoted themselves to plundering their neighbors of their women and their wealth. The church being specially the object of their predatory excursions, that institution, with a view to the protection of its enormous and increasing riches, turned the warlike spirit of the age to its advantage, and, by introducing the religious element into the investiture of knighthood, brought to the ceremony a specific character of solemnity which created a tenacious bond of attachment between the two. With that keen shrewdness which has always characterized the Roman Catholic church, the latent spirit of respect for woman which existed in the middle ages, even among the rude and savage populations of central Europe, was made a powerful element in the foundation of the new order. The virgin Mary became the special tutelary divinity of knighthood, and by parity of reasoning, the sex was added to the church, in the esteem of the order, as being under its protection.

This deference to woman and the church became thereafter the chief impelling motive, under whose impulse the knights of the middle ages were incited to deeds requiring the greatest daring, self-denial, and tenacity of purpose. Not unnaturally, and particularly among the rash and the young, abuses crept into the system, and wild and foolish exploits brought the order into such disrepute that it became possible for Miguel Cervantes, at the close of the 16th c., to compose his wonderful burlesque of knighthood, the immortal *Don Quixote*, and for that work to meet with public acceptance. Yet it is to be remembered that in no other instance, save perhaps those of the Roman Catholic church and the masonic order, has any merely human institution survived so long and accomplished so much of material good to mankind—on a basis of purely abstract qualities. The institution of the later orders of knighthood was occasioned by a desire to construct a reputable system of recognition of merit. Some of these were distinctively charitable in their nature, others simply orders of merit. Of these the names of 240 have been preserved in history.

KNOBEL, KARL AUGUST, D.D., 1807–63; b. near Sorau, Silesia; an eminent German theologian and archæologist. He studied in Sorau under principal Scharbe. In 1831 he began lecturing, and by his freshness and power drew numerous hearers. In 1837 he received from Breslau the degree of doctor in theology for his able work on prophecy, and soon after the offer of a professorship in Göttingen, in Ewald's place, and of one in Giessen, which he accepted. He was a learned rationalist, and published during his 24 years at Giessen numerous works, among which were *Ecclesiastes* and several commentaries.

KNOBELSDORFF, HANS GEORG WENZESLAUS VON, Baron, 1697–1753; b. Brandenburg, Prussia. After serving in the army he studied architecture, and in 1740 was appointed director of royal buildings in Prussia by Frederic II., who, when crown-prince, had been his patron. He drew the plans for the Thiergarten and opera-house in Berlin, and for the famous Sans Souci palace at Potsdam.

KNOLLYS, HANSERD, 1598–1691; b. in Lincolnshire, England. He was educated at Cambridge university, and ordained a priest of the church of England, but, having changed his views of church government and of baptism, he was deposed for non-conformity, and compelled to flee to New England, where his stout attacks on infant baptism speedily involved him in controversy with the authorities. Cotton Mather nicknamed him "Mr. Absurd Knowless." He was the first minister at Dover, N. H., where he preached, 1638–41. In the latter year, after a short stay on Long island, he returned to London, where he died. He was an accomplished scholar, a fervent and powerful preacher, and a wise instructor of youth. Among his publications were a Hebrew grammar, and *A Flaming Fire in Zion*. His uncompleted autobiography was finished by another hand after his death. A "Hanserd Knollys society," formed in London in 1845, reprints early Baptist writings.

KNOTT, J. PROCTOR, b. Ky., 1830. After studying law he removed to Missouri in 1850, and ten years afterwards was attorney-general of that state. In 1862 he returned to Kentucky, and was elected to congress by the democratic party in 1866, 1868, and 1870, and from 1874 to 1880 inclusive. He earned notoriety by several humorous speeches, especially by one in which he ridiculed the town of Duluth, Minn., which at that time was just rising into importance and demanding large appropriations from the government.

KNOWLES, JAMES DAVIS, 1798-1838; b. Providence, R. I.; graduated at Columbian college, D. C., in 1824. In 1825 he became pastor of the Second Baptist church in Boston, where he remained until 1832, when he accepted an appointment as professor of sacred rhetoric in the Newton (Mass.) theological institute. He published memoirs of the first Mrs. Adoniram Judson (Ann Hasseltine), missionary to Burmah, India, and of Roger Williams, and was for some time editor of the *Christian Review*.

KNOW-NOTHINGS, a secret political society, organized in the United States in 1853, which rapidly gained the ascendancy in several states, and then as rapidly declined. Its principles and objects, as set forth in a convention of the party in New York in 1855, were as follows: "The Americans shall rule America; the union of these states; no north, no south, no east, no west; the United States of America, as they are, one and inseparable; no sectarian interferences in our legislation, or in the administration of American law; hostility to the assumption of the pope, through the bishops, etc., in a republic sanctified by Protestant blood; thorough reform in the naturalization laws (requiring 21 years' residence of all foreigners previous to voting); free and liberal educational institutions for all sorts and classes, with the Bible, God's holy word, as a universal text-book." Strenuous efforts were made, by means of the new excitement created by this society, to supersede the antislavery agitation, which was then rapidly increasing; but in 1856 the latter swallowed up the former, and the larger portion of the know-nothings united with the republicans in nominating John C. Fremont for president, a minority presenting Millard Fillmore as their candidate. This division was fatal to the organization, which soon afterwards fell to pieces and has never been renewed. In 1855 a society called "know-somethings" was formed to oppose the one herein described, but it shared the fate of the earlier association.

KNOX, a co. in n.w. Illinois; 720 sq.m.; pop. '70, 39,522. It contains considerable deposits of coal, and has a fertile soil. Agriculture is the chief occupation, but there is much manufacturing of carriages, saddlery, brick, and hardware. The Chicago, Burlington and Quincy railroad passes through. Co. seat, Galesburg.

KNOX, a co. in s.w. Indiana, bordering on Illinois; 513 sq.m.; pop. '70, 21,562. Agriculture is the principal pursuit. The surface is level and fertile. Co. seat, Vincennes.

KNOX, a co. in s.e. Kentucky, on both sides of the Cumberland river; 340 sq.m.; pop. '80, 10,587. It is mountainous, with deposits of iron, coal, and salt. The chief products, besides live stock, are corn, oats, wheat, and potatoes. Co. seat, Barboursville.

KNOX, a co. in s. Maine, bounded e. by Penobscot bay, s. by the Atlantic; intersected by the Medomac river, and comprises several islands; 330 sq.m.; pop. '80, 32,862. The surface is uneven, the soil fertile. The staples are potatoes, hay, and butter. A part of the population are engaged in navigation and the fisheries. The county has extensive quarries of limestone, and much lime is exported. There are numerous manufactories for carriages, saddlery, and woolen goods; many tanneries and flour and saw mills. The Knox and Lincoln railroad connects Bath with Rockland, the co. seat.

KNOX, a co. in n.e. Missouri; traversed by the Quincy, Missouri and Pacific railroad; 504 sq.m.; pop. '80, 13,047. The surface is nearly level, with considerable timber. The soil is very fertile, and much wool, tobacco, and grain are raised. Brick and carriages are made. Co. seat, Edina.

KNOX (formerly L'Eau qui Court), a co. in n.e. Nebraska, on the Missouri and Niobrara rivers; 1000 sq.m.; pop. '80, 3,666. The soil is adapted to grazing and raising of grain.

KNOX, a co. in central Ohio, drained by the Vernon, Walhonding and north fork of the Licking rivers; traversed by the Lake Erie division of the Baltimore and Ohio railroad, and connected with Cleveland by the Cleveland, Mt. Vernon and Columbus railroad; 530 sq.m.; pop. '80, 27,450. It has an undulating surface and fertile soil. The chief products are wheat, oats, maize, potatoes, tobacco, wool, butter, and pork. A large quantity of maple-sugar is made. There are numerous factories for carriages, sash, blinds and doors, tin, copper and sheet-iron ware, and woolen goods; also tanneries and flour and saw mills. Co. seat, Mount Vernon.

KNOX, a co. in e. Tennessee; traversed by the Holston river, whose valley is exceedingly fertile; 575 sq.m.; pop. '70, 28,890. The surface is diversified by several mountain ridges; and iron and marble abound. The raising of cattle is an important industry, and grain, wool, and tobacco are largely produced. It is intersected by the railroads which run into Knoxville. Co. seat, Knoxville.

KNOX, a co. in n. Texas, about the Brazos river; 1275 sq. miles. It contains extensive coal deposits. The surface is uneven, with some prairie. It is as yet unsettled.

KNOX, HENRY, 1750-1806; b. Boston, where he was engaged in business as a book-seller up to the outbreak of the revolutionary war. He was present at the battle of Bunker Hill as an aid to gen. Artemas Ward, and soon afterwards joined a regiment of artillery. He was soon placed in charge of artillery in New York, upon whose evacuation he took part in the campaign in New Jersey, where by his skillful handling of the artillery he prevented Cornwallis from passing the Assumpink river, and the next day, Jan. 3, 1777, he took part in the engagement at Princeton. He was promoted to a brigadier-generalship, and took a prominent part in the battles at Brandywine, Germantown, and Monmouth, and at the siege of Yorktown. He was made a maj.gen., and after hostilities had ceased he superintended the disbandment of the army. He was secretary of war (which office included at that time the supervision of the navy) from 1785 to Dec., 1794. Upon his retirement from office he settled on his estates in Maine.

KNOX, VICESIMUS, D.D., 1752-1821; b. Middlesex; graduated at Oxford; master of Tunbridge school, Kent, for 33 years, and for a long time rector of several parishes. He was admired as a preacher. His chief works were *Essays, Moral and Literary; Liberal Education; Considerations on the Lord's Supper; Christian Philosophy*, which passed through numerous editions; *Sermons; Elegant Extracts in Prose and Verse*. His complete works were published in 7 volumes.

KNOX COLLEGE, at Galesburg, Knox co., Ill., was organized in 1841. In 1880 it had 14 professors and 92 students, and a library of 6,200 volumes. It admits students of both sexes. President, Newton Bateman, LL.D.

KNOXVILLE (*ante*), the capital of Knox co., Tenn., and a terminus of the Knoxville and Charleston railroad, which connects here with the Knoxville and Ohio railroad. It is built upon an elevated site, and is surrounded by picturesque scenery. It has prosperous manufactures and a vigorous trade, and is exceeded in population by but two cities in the state. The Tennessee agricultural college is connected with the East Tennessee university at this place. Among the numerous public buildings is the U. S. custom-house and post-office, costing \$400,000, an elegant structure of gray marble, quarried in the vicinity. Knoxville was the capital of the state from 1794 to 1817.

KNYPHAUSEN, DODO HENRY, Baron, 1730-89; b. Alsace; a German soldier distinguished in the wars of Frederick the great against Austria. In the American revolution he received command of Hessian and Waldeck troops, participating in the battles of Long island, White Plains, Fort Washington, Monmouth, and Brandywine. In the absence of sir Henry Clinton in 1780 he had command of the British troops in New York, and made two raids into New Jersey with 5,000 men, accomplishing, however, little more than the sacking of Connecticut Farms and the burning of Springfield.

KOCHLA'NI, the name given to the royal breed of Arabian horses, said to have been the offspring of Solomon's stud, and to have had their genealogies preserved during more than 2,000 years.

KŒCHLIN, ANDRÉ, b. Paris, 1785; the most distinguished member of the large family which has so long carried on the print-trade of Mulhouse in Alsace. It was through his efforts that this branch of industry attained its highest degree of prosperity.

KOEK'KOEK, BERNARD CORNELIS, 1803-62; b. in the Netherlands; studied painting under his father and at Amsterdam. In 1841 he went to reside at Cleves in Rhenish Prussia. He was a landscape painter and his work holds high rank. Three of his brothers also were painters.

KO'KOMO, a city, the capital of Howard co., Ind., on the Wildcat river, and on the Indianapolis, Peru and Chicago railroad, where it crosses the Pittsburg, Cincinnati and St. Louis railroad; 54 m. n. of Indianapolis, and 22 m. s.e. of Logansport; pop. '75, 5,720. It is the n.e. terminus of the Frankfort and Kokomo railroad. It has the usual county buildings, a state normal school, a high school, 3 banks, 5 churches, a foundry, a woolen-mill, several planing-mills, a stave factory, and 3 weekly newspapers.

KOLB, GEORG FRIEDRICH, b. Sept. 14, 1808, at Spires, in Rhenish Bavaria, where, at 22 years of age, he established a liberal journal, which he conducted for more than 20 years, encountering many obstacles from the government. It was by his influence as a member of the Bavarian diet that king Louis I., in 1849, was compelled to reimburse the state treasury for the money which had been lent to his son, king Otho, of Greece. Soon after this the reactionary party came into power, and Kolb took up his residence in Zurich to escape from the persecutions of the Bavarian government. He returned in 1860 and again became the editor of a liberal journal. He is eminent, not only as a politician and journalist, but also as a statistician.

KÖLCSEY, FERENCZ, 1790-1838; b. Transylvania. He studied law, but his tastes drew him away to the literary profession. Identifying himself with the movement led by Kazinczy, he exercised a wide influence as a critic, and wrote tales and poems which gained him no little popularity. He was a member of the Hungarian diet from 1832 to 1836, and took rank as one of the most brilliant orators of the country. Just as a great political career seemed to be opening before him, he suddenly died at Pesths. His collected writings were published after his death; his *Diary* in 1848.

KOLIN, or KOLLIN, a t. of Bohemia, in the circle of Kaurzim, on the Elbe, at a railway junction, 35 m. e. of Prague; pop. 9,473. It has manufactures of cotton, liquor, etc. It was here that marshal Daun defeated Frederick the great in 1757.

KOLOSSES. See KADIAKS.

KOMORN, a co. in Hungary. See COMORN.

KOMORN, or COMORN, a Hungarian city, whose fortifications are esteemed the strongest in the world. The city proper is situated on an island at the point of union of the Waag and Danube rivers, 85 m. from Vienna; pop. '70, 12,256. It has a number of important public buildings, including seven churches, of which four are Roman Catholic, and a synagogue. The manufacture of cannon and small arms is conducted on an extensive scale. The fortress of Komorn dates back to the 15th c., when it was built by the orders of Matthias I. (Corvinus), king of Hungary. The original fortress, however, was afterwards greatly strengthened by the construction of works on both sides of the Danube, têtes-de-pont, and other defenses, rendering it nearly impregnable. Komorn was besieged and captured many times and retaken as many, during the wars between the Ottoman Turks and the Hungarians. Here, too, in 1848-49, occurred the final conflict of the Hungarian war against Austrian domination. Here, after Russian intervention had turned the scale in favor of the house of Hapsburg, Klapka and his gallant comrades resisted during several weeks the Austrian army under Haynau, and only finally capitulated and retired from Komorn when granted all the "honors of war."

KONIA'GAS. See KADIAKS.

KONGSBERG, a t. of Norway, 45 m. by rail s.s.w. of Christiana, on the river Lauwen; pop. 4,800. A silver mine, discovered here in 1623, is the most important in the kingdom. The town has a school of mines, a royal manufactory of arms and powder, smelting-works for silver and cobalt, and manufactures of iron, cotton goods, toys, etc.

KÖNIGSHÜTTE, a t. of Prussia, in Silesia, 54 m. e.s.e. of Oppeln; pop. 26,030. It is celebrated for its mineral baths, and has large iron and zinc works and coal mines.

KÖNIGSMARK, MARIA AURORA, Countess, 1666-1728; b. Sweden; daughter of a Swedish general, and granddaughter of a field-marshal in the Swedish service of the name of Wrangel. She was mother of Maurice of Saxony (marshal Saxe), and an ancestress of Mme. Dudevant (George Sand). She was celebrated for her charms both of person and mind. Previous to 1694 much of her time was passed at the courts of Stockholm, Hanover, and Brunswick, receiving a thorough education for that period, and becoming an accomplished linguist. She was the author of a number of unpublished poetical and dramatic pieces, among them verses upon Charles XII. of Sweden. In 1694, as countess of Königsmark, she went, in consequence of some financial difficulty with her bankers at Hamburg, to the court of Augustus I., elector of Saxony, surnamed the strong, hoping for his intervention in her favor. She found the licentious monarch living in greater luxury and magnificence than any sovereign of Europe, excepting Louis XIV. Won by her beauty and accomplishments, Augustus first made her his mistress, and, in 1702, ambassadress to her royal countryman, Charles XII. of Sweden, with whom she failed to make terms, not succeeding in gaining an audience. Her historian, Voltaire, however, who esteemed her "the most famous woman of two centuries," has recorded that "she returned with the satisfaction of believing that she was the only person feared by the king of Sweden." Her life was ended at Quedlinburg, a town of Prussia, at the foot of the Hartz mountains, in the province of Saxony, on the river Bode. She was buried in the church which contains the graves of emperor Henry I. and his wife Matilda and the abbesses of the convent of St. Wipertus.

KÖNIGSMARK, PHILIP CHRISTOPHER, Count; b. about 1650, assassinated in 1694; a Swedish adventurer. He entered the Swedish army, in which he attained the rank of colonel. His cousin, Sophia Dorothea, a beautiful princess, daughter of the duke of Calle, was married to the prince-elect of Hanover (afterwards George I. of England). He went to the court of Hanover in 1692, and, finding his cousin alienated from her husband on account of his gloomy and jealous character, he entered into an arrangement with her to flee with him to France, but, the intrigue being suspected, he was assassinated by order of the elector. The correspondence of the cousins, published in 1847, shows that a guilty love existed between them.

KÖNIGSTEIN, a small t. of Saxony, on the Elbe, 17 m. s.e. of Dresden; pop. 3,261; noted for its impregnable fortress on a rock 779 ft. above the river. Its strength is due to its lofty and insulated position on the solid and precipitous rock. The Saxon monarchs have used it in times of danger for themselves and their treasures. The high gateway is approached by a slanting passage cut through the rock, and by a wooden drawbridge. This passage is strongly defended. Two years' provisions for 1200 men are stored in time of war in vast bomb-proof casemates hollowed out of the rock. There is a well 1172 ft. deep bored in the rock, and the land surrounding the fortress supplies vegetables for the garrison and pasturage for one or two cows. This is one of the few fortresses in Europe that has never been taken. The last time it became a royal asylum was in 1849, when the king lived here three months. Packing-boxes are kept ready for conveying thither the valuable treasures of Dresden in case of danger. The garrison consists entirely of Saxon soldiers, but the commander is appointed by the emperor.

KONRAD IV., 1228-54; b. in Apulia; son of Frederick II., emperor of Germany; crowned king of the Romans in 1237, and upon the death of his father, in 1250, assumed the title of emperor. He contended against the intrigues and usurpations of the pope, and repulsed the Mongol invaders. He had a competitor in William of Holland, by whom he was defeated. He kept himself on the throne until, embarrassed by the increasing anarchy of Germany, he retired to Italy in 1251 and conquered Naples. He was foiled in his plans, however, by the pope, and died of a lingering disease, supposed to have been induced by poison.

KONX OMPAX, words employed in the dismissal ceremonies of the Eleusinian mysteries, which were held by the Athenians at Eleusis every fourth year in honor of Ceres. Their signification appears to have been "amen," or "the ceremonies are concluded."

KOOFÄ, or **KUFA**. See **KUFIC WRITING**, *ante*.

KOOM, or **KUM**, a t. of Persia, in the province of Irak-Ajemi, 60 m. s.w. of Teheran; pop. 8,000. It was built by the Saracens at the beginning of the 9th c.; became one of the finest cities of Persia, and was long noted for the manufacture of silks. The Afghans took and nearly destroyed it on their invasion of Persia in 1722. Though partly rebuilt, it is still mostly in ruins. Cutlery, cloth, glass, china, and soap are made here, and there are well-supplied bazaars. It has a beautiful mosque to the memory of Fatima, the daughter of imâm Resa, containing the tombs of Sofi I. and shah Abbas II.

KOOMASSIE. See **COOMASSIE**, *ante*.

KOOR, or **KUR**. See **KURA**, *ante*.

KOORDISTAN'. See **KURDISTAN**, *ante*.

KOORILE ISLANDS. See **KURILE ISLANDS**, *ante*.

KOORSK. See **KURSK**, *ante*.

KOOSSO, or **Kosso**. See **CUSSO**, *ante*.

KOO'TENAIS, **KITUNAH**A, or **FLATBOWS**, a tribe of Indians in the n.w. part of the United States, long allied to the Flatheads, but forming a distinct family. They are amiable and inoffensive, but cowardly, and indisposed to abandon a nomadic life. They are poor, subsisting on fish, roots, grain, berries, etc. Formerly they roamed about the head waters of the Clark and McGilvray rivers, where they hunted elk, deer, Rocky mountain sheep, birds, and fish, but seldom molested buffalo. Though they welcomed father De Smet, and built a chapel for him, the tribe as such has not made any marked advance toward civilization. In 1872, 320 of the tribe were in Montana, 400 in Idaho, 400 in British Columbia, and a few in Washington territory. Those in Idaho live upon a reservation set apart for them, to which they were removed in conformity with an executive order of June 14, 1867.

KOO'TENAY, a co. in n. Idaho, bounded n. by British Columbia, e. by Montana, s. by Cœur d'Alène river, and w. by Washington territory. It contains several large lakes, and is drained by Clark's river. Its surface is partly mountainous and partly prairie. It has deposits of gold.

KOPP, **JOSEPH EUTYCH**, 1793-1866; b. in the canton of Lucerne, Switzerland; taught Greek at the lyceum of Lucerne, 1819-41, and was president of the board of education, 1841-45, retiring on account of the opposition excited by his hostility to the Jesuits. He devoted much labor to the study of the history of the Swiss federation, and was the first to demonstrate, in his *Urkunde zur Beleuchtung der Geschichte der eidgenösscher Bünde*, the legendary character of the story of William Tell. His *History of the Swiss Federation (Geschichte der eidgenösscher Bünde)* is a valuable work, showing much research of early documentary sources.

KOPPARBERG, a district of Sweden, situated on both sides of the Dal river, and embracing the territory formerly celebrated under the name of Delarne; pop. 180,000. It is a mountainous region, covered with forests of birch and fir, rich in copper and porphyry, but not well adapted for agriculture. The inhabitants are Scandinavians of the finest type, hardy, brave, and honest, and exceedingly fond of their native vales. The country is too poor to yield them a support, and multitudes are compelled to go elsewhere for work, but they invariably return sooner or later with the fruits of their industry, to live and die in the places where they were born. Capital, Falun.

KÖPPEN, **PETER VON**, 1793-1864; b. at Kharkow, Russia; educated at the university of his native city, and devoted his life to investigations concerning the ethnology, archaeology, and history of Russia. His writings on these subjects are of great value. The Russian government presented him with an estate in the Crimea.

KORÄES, **DIAMANTES**. See **CORAY**, **ADAMANTIUS**.

KORAT', a dependency of Siam, between that country and Cambodia; pop. 60,000. It is situated on a high table-land, and its capital, which bears the same name, is a stronghold nearly inaccessible on account of the approaches to it being through a dense and dangerous jungle. The inhabitants of Korat are chiefly engaged in agriculture, sugar being a staple product. Copper mining is also an important industry.

KORNEGAL'LE, or **KORNEGAL**, a t. of Ceylon, 48 m. n.e. of Columbo; pop. 3,682; beautifully situated in the shade of an immense rock and in the midst of dense woods.

It was anciently one of the capitals of Ceylon. It is a great resort for pilgrims on account of an ancient temple on a rock, in which is hollowed, as the legend relates, the footprint of Buddha.

KORTETZ', or CORTITZ, a Russian island in the Dnieper river, rising to a height of 165 ft. above the level of the water, and formerly a Cossack stronghold. In 1784 the empress Catharine II. removed the Cossacks, and replaced them with a colony of German Mennonites. In 1871, owing to the conscription practiced in Russia, many of the Mennonites emigrated to America, whereupon the emperor modified the stringency of the laws. Kortetz contains 16 villages, whose inhabitants are chiefly devoted to agriculture, though there are manufactures of cotton and wool.

KORVEI. See CORVEI, *ante*.

KOSCIUSKO, a co. in n. Indiana, intersected by the Tippecanoe river, and by the Pittsburg, Fort Wayne and Chicago, and Cincinnati, Wabash and Michigan railroads; 567 sq. m.; pop. '70, 23,531. The productions are wheat, maize, oats, hay, wool, dairy products, cattle, and lumber. There are but few manufactures. Capital, Warsaw.

KOSCIUSKO, MOUNT, the highest elevation of the Australian Alps, being 7,176 ft. high, and situated nearly in lat. 36° 30' s., and long. 134° 30' w., on the boundary between the provinces of New South Wales and Victoria. The head-waters of the Murray and Murrumbidgee rivers are nearly at the base of the mount.

KOSLOV. See KOZLOF, *ante*.

KOS SUTH, a co. in the n. part of Iowa; 576 sq. m.; pop. '80, 6,159. It is drained by the e. fork of Des Moines river, which divides it into two nearly equal parts. A large portion of the surface is prairie, and the soil is fertile. Wheat, corn, oats, and hay are the chief products. The county is traversed by the Iowa and Dakota division of the Milwaukee and St. Paul railroad. Valuation of real and personal property, \$1,515,151. Capital, Algona.

KÖSZEGH. See GÜNS, *ante*.

KÖTHEN, a thriving manufacturing t. in the duchy of Anhalt, in Germany, pop. 13,563, situated about 30 m. from Leipsic, is the meeting-place of three lines of railroad: the Berlin and Anhalt, Magdeburg and Leipsic, and Köthen and Halberstadt. It has a number of public buildings, excellent educational facilities, and a considerable trade, in which sugar-refining is the most important factor. Formerly it was the capital of the duchy of Anhalt-Köthen, but in 1863 this became a part of the united duchy of Anhalt.

KOTTBUS. See COTTBUS, *ante*.

KOULI KHAN. See NADIR SHAH, *ante*.

KRANACH, LUCAS. See CRANACH, *ante*.

KRANTZ, ALBERT, 1450-1517; b. Germany; having studied philosophy and theology at Hamburg and Rostock, and having made the tour of Europe, he returned to receive his degree at Rostock, and to fill the office of rector in the university. In 1489, having been elected syndic of Hamburg, he was present at the assembly of Wismar, taking a prominent part in the discussion relative to the interests of the Hanseatic towns, and was sent by them as ambassador to France in 1497, and to England in 1499, for the purpose of securing them as allies against the pirates of the North sea. In 1500 he was chosen arbitrator by John, king of Denmark, and Frederick, duke of Holstein, to settle their difference on the subject of the province of Ditmarsen. In 1508 he was appointed dean of his chapter, and labored diligently to eradicate the evils that had crept into ecclesiastical discipline. He, however, condemned the first attack of Luther on the Romish church. His principal works are *Chronicles of the Kingdoms of Sweden, Denmark, and Norway*, in the Latin tongue, and *Ecclesiastical History of Saxony*. He was approved by Cisner as an author of the first rank among contemporaneous writers.

KRASICKI, IGNACY, 1734-1801; born in the province of Galicia, Poland. His family, which was of the highest distinction, destined him for the church. He completed his studies for the priesthood at Rome, was made a canon, and, in 1767, bishop of Ermeland. His diocese, by annexation, passed under the rule of Frederick the great, with whom Krasicki's talents for satire soon made him a favorite. He was promoted to the archbishopric of Gnesen, 1795. He wrote much in verse, chiefly satires and fables. Besides his version of the old story of the king of Poland devoured by mice, we may mention his *Monachomachia*, or *War of Monks*. He also translated *Ossian* into Polish.

KRASINSKI, ZYGMUNT NAPOLEON, Count, 1812-59; b. in Poland. He was led by his enthusiasm for the restoration of Polish autonomy to refuse to enter the Russian service, in which his father held a high position. He celebrated in verses of considerable power, especially the lyrical portion, the aspirations of his countrymen, and more generally of the Slavic races. His *Nubiska Komedyja* (Undivine Comedy) has been imitated by the present lord Lytton (Owen Meredith) in his *Fool of Time*.

KRASNOVODSK', a Russian fortress on the s.e. shore of the Caspian sea, on the bay of Krasnovodsk, a place of both military and scientific importance. It was from this point that Peter the great moved upon Khiva, and it has been the starting-place of

several important exploring expeditions. After the time of Peter the great it was neglected, but was restored to use in 1869. One of the three Russian columns that advanced upon Khiva in 1873 started from this point.

KRASSO, a co. in s. Hungary, w. of Transylvania, 2,019 sq.m.; pop. '70, 259,079; is heavily wooded, but contains good pasture land and productive mines. The inhabitants are chiefly Roumanians, with an admixture of Germans, Magyars, and Croats. Co. town, Lugos.

KRASZEWSKI, JOSEF IGNACY, b. Warsaw, 1812; was educated at the university of Wilna, and in 1837 married and settled in Volhynia. The revolutionary period of 1830 aroused his sympathy and secured his practical aid, and in 1831 he was arrested and not released until 1834. For five years, between 1853 and 1858, he was curator of schools in Volhynia. In 1860 he was an editor in Warsaw, and three years later settled in Dresden, and delivered lectures. He was a versatile writer, and published as many as 300 volumes of fiction, travels, history, and poetry.

KRASZNA, a co. in e. Hungary, formerly a part of Transylvania; 444 sq.m.; pop. 62,714; is mountainous, the valleys only yielding to agriculture. In 1860 it was formed into a separate county. Capital, Szilágy-Somlyó.

KRAUSE, KARL CHRISTIAN FRIEDRICH, 1781-1832; b. Germany; having been educated at the university of Jena, and having filled the office of tutor for two years, resided for the next 20 years at Rudolstadt, Berlin, and Dresden, pursuing philosophical studies and making occasional journeys into the s. of Germany, visiting France and Italy. In 1824 he returned to Göttingen, lecturing there on philosophy until 1831, when he went to live as a private citizen at Munich. He had socialistic views of an original type, anticipatory of a millennium of harmony and unity, in which all mankind should be associated in a common labor for universal development; finding in freemasonry, as he thought, the first principles of such an organization. Among his works on this subject were published in 1810: *Die drei ältesten Kunsturkunden der Freimaurerbruderschaft*; *Höhere Vergeistigung der echt überlieferten Grund-symbole der Freimaurerei*; and *Urbild der Menschheit*. In 1828-29 he published two works on philosophy.

KRAUTH, CHARLES PORTERFIELD, S.T.D., LL.D., b. 1823; graduated at Pennsylvania college, Gettysburg, 1839; was ordained to the ministry of the Lutheran church, and was pastor of churches in Virginia, Maryland, and Pennsylvania. In 1864 he was appointed professor of systematic theology in the Lutheran theological seminary at Philadelphia, and in 1868 he accepted the professorship of intellectual and moral philosophy at the university of Pennsylvania. He has written much on the history, doctrines, and liturgy of the Lutheran church, showing extensive learning and research.

KRAYOVA. See KRAJOVA, *ante*.

KREMLIN. See Moscow.

KRISH'NA RIVER. See KISTNAH, *ante*.

KRISS KRINGLE. See NICHOLAS, SAINT.

KROEGER, ADOLPH E., b. near Friedrichstadt, Germany, 1837. His father was a minister, and in 1848 the whole family came to America and settled at Davenport, Iowa, where young Kroeger some years afterwards entered a banking-house as clerk. During the three years preceding the rebellion he was engaged upon the *New York Times* as a translator. During the war he served upon gen. Fremont's staff. His writings and translations have contributed not a little toward bringing German literature into notice in the United States. In 1873 he published *The Minnesingers of Germany*.

KRONSTADT, a seaport in Russia. See CRONSTADT, *ante*.

KRONSTADT, a city in Transylvania. See CRONSTADT, *ante*.

KROO, or KRU, an idolatrous negro race, supposed to have originated in central Africa, and to have been driven thence by the Mandingoes and Foolahs to Liberia. At present they are settled on the St. Paul river, their country reaching from cape Mesurado to St. Andreas. They are a powerful tribe, known as Kroomen, and are particularly fond of the sea. They are very black, woolly-headed, stout and active, and are much employed on the coast as sailors and boat-builders. They occupy a tract of land about 70 m. in length, extending inland only a few miles. They are polygamous, devoting their earnings chiefly to buying wives, who take care of them when they become old and infirm. Missionaries have made efforts to convert the Kroomen, but without success.

KROTOSCHIN', or KROTOSZYN, a t. in the province of Posen, Prussia; pop. '71, 7,866; manufactures considerable tobacco and produces wool. It also has manufactures of linen. More than one-third of the population are Jews, but there are places of worship for Protestants and Roman Catholics.

KROZET ISLANDS. See CROZET, *ante*.

KRUG, WILHELM TRAUOGOTT, 1770-1842; a follower of Kant, whom he succeeded in 1804 as professor of metaphysics at Königsberg. He became professor of philosophy

at Leipsic in 1809. In his *Fundamental Philosophie* he attempted to harmonize realism and idealism.

KRUMMACHER, FRIEDRICH ADOLF, 1768-1845; b. Prussia; having been educated for the church, was appointed professor of the theology in a university in Duisburg, which in 1818 was transferred to Düsseldorf. In 1819 he was a member of the consistorial council, and court preacher at Bernburg subsequent to his pastoral labors in Crefeld and Kettwich. In 1824 he was pastor of the Reformed congregation at Bremen. He was the eldest of a family who were distinguished among the German clergy. He was a believer in evangelical religion, and most widely known by his *Parables*, published in 1805, which passed through many editions, were illustrated, translated into English, and attained great popularity in Germany and other countries. He wrote, besides a drama of *Johannes* and *Hymn of Love*, a large number of religious and poetical works, among them *Die Kinderwelt*, sacred poems for children; *The Suffering, Death, and Resurrection of our Lord Jesus Christ*; *Cornelius the Centurion*; and *The Life of St. John*.

KRUMMACHER, GOTTFRIED DANIEL, 1774-1837; b. Germany; educated at Duisburg, once the seat of a Protestant university; became a popular preacher of the Reformed church. He embraced the spiritual and living faith of the pietists, the adherents of a movement which originated and was developed within the German Lutheran church in the 18th c., and with which church it never severed its connection. In 1816 he accepted the pastorate of the church at Elberfeld, on the Wipperf, near the city of Barmen and 16 m. from Düsseldorf, and was the acknowledged head of the pietists of that district. In 1832 he published *Sermons on the Wanderings of the Children of Israel*, and in 1838 *Daily Manna*. In the English translation the title of the latter was changed to *The Christian's Every-day Book*.

KRUPP, ALFRED, b. Prussia; son of Friedrich (d. 1826), founder of the steel-works at Essen; succeeded to the administration of this enormous manufacturing establishment in 1848. The old firm-name Friedrich Krupp is retained. In 1876 the Krupp manufactory exhibited in the centennial exhibition at Philadelphia. The magnitude of this establishment is shown by a few figures: it has more than 1000 furnaces, nearly 300 steam-engines, 15 locomotives, nearly 1000 cars, more than 3,000 dwelling-houses; owns more than 400 mines, also smelting-houses and blast-furnaces; and employs about 20,000 men in its various departments. See KRUPP'S STEEL, *ante*.

KUBAN, a territory in s. Russia, at the foot of the Caucasus range of mountains, in Ciscaucasia, 36,251 sq.m.; pop. '71, 672,224. It is the land of the Kuban Cossacks, numbering nearly half a million, who are governed by a lieutenant-general, with capital Yekaterinodar, on the Black sea.

KUEN-LUN, or KOOLKON, MOUNTAINS (*ante*), a mountain range of central Asia, bounding Thibet on the n. and separating it from Yarkand and Khoten. It commences about 35° n. lat. and 75° e. long., and extends in an easterly direction until in 92° e. long. it divides into two ranges, one of which, called Banyan-Kara, diverges s.e.: the other by various names passes through the Chinese provinces of Kan-soo and Shen-soo. The western part is commonly known by the names of Karakorum and Mustag. The numerous elevated branches which it sends forth towards the Indus, form valleys down which immense glaciers descend 10,000 feet. Some of the glaciers of this range are more stupendous than those of the Himalayas.

KUHN, ADALBERT, b. in Königsberg, Prussia, 1812; was a pupil at Berlin of Böckh and Bopp, under whom he made great progress in comparative philology. In 1841 he began to teach at the Cologne gymnasium, where he became full professor in 1856. Besides taking high rank in comparative philology he was one of the founders of the science of comparative mythology. He has written several books and still conducts periodicals devoted to his favorite subjects.

KÜHNER, RAPHAEL, 1802-78; b. Gotha; was educated at Göttingen; in 1824 began to teach at the Hanover lyceum. He has written several Greek and Latin text-books, some of which have been translated into English.

KÜHNÖL, or KUEHNOEL, CHRISTIAN GOTTLIEB, 1768-1841; b. Leipsic; lectured on biblical exegesis and hermeneutics at the age of 20 in the university of Leipsic; was professor of philosophy in 1790; and in 1809, of theology at Giessen. He was the author of several able works, among which were *Messianic Prophecies*; *Notes on the New Testament*; *The Psalms in Meter*; *Commentary on the Historical Books of the New Testament*, in 4 vols. The last especially was very popular, and republished in England with the Greek text.

KU-KLUX KLAN, or KU-KLUX, the title of a secret association which existed in the southern states from 1866 to 1872, and which terrorized that section of the country during the period in question. It was first made known as an active agency in Tennessee, in 1867, when the governor of the state, William G. Brownlow, called upon the U. S. military authorities to suppress violence and public disturbances in the state, which were traced to this organization. The history of the Ku-klux shows that at the close of the war various societies of a political character were formed in the states of Alabama, Arkansas, Georgia, Kentucky, Mississippi, North and South Carolina, Tennessee, and

Texas, under the names of the knights of the white camellia, white brotherhood, constitutional union guards, pale-faces, invisible empires, invisible circle, etc., all of which were eventually lost in the broader scope and more powerful and permanent influence of the Ku-klux klan. From the evidence afforded it would appear that the origin of these secret societies, and more particularly of the one we are specially considering, is to be found in the general dislocation of political and social interests in the southern states, consequent to the aggressive influence of a long and devastating condition of warfare. In explanation of their foundation, ex-confederates claim that they were preceded by the organization of loyal leagues, which, as they allege, were formed among the negroes in the south through the efforts of "carpet-baggers," so-called, radical leaders intriguing in the interest of the perpetuation of the power of the republican party in the southern states. It is also claimed in behalf of the southern people that, through the action of the 14th and 15th amendments to the constitution of the United States, the southern white population was endangered in its homes and its social relations, the emancipated blacks being considered in the light of a race angered by long and bitter servitude, now armed and equipped by law and public sentiment, and only waiting opportunity for an uprising and to grasp the balance of power among the high-spirited people to whom they had been slaves for more than two centuries. This is the southern explanation of the rise of the Ku-klux. Whatever may be the measure of truth contained in it, this in no wise militates against the justness of public condemnation of its acts.—By joint resolution, dated April 20, 1871, the two houses of congress ordered an investigation into the condition of affairs in the states recently in a condition of insurrection. For three years the press had been filled with detailed statements describing acts of atrocity attributed to the secret and terrible Ku-klux klan, which rivaled the worst instances recorded against the Spanish domination in the Netherlands and the bloody scenes of the French revolution. In every southern state except Virginia, West Virginia, Delaware, Maryland, and Florida, assassinations of negroes and white republicans were of daily occurrence. The gift of suffrage to the colored man had been nullified in its outcome as a political influence through the system of terrorizing which utterly precluded the free suffrage of the emancipated blacks. Besides instances of special massacres covering large numbers, and of which there occurred many in South Carolina, Louisiana, Mississippi, Texas, and Tennessee, the daily and nightly assassinations, whippings, burnings, and other outrages were innumerable, and were never recorded. In reporting the state of society in Texas, the evidence given is to the effect that the negroes were murdered with such frequency that there was no possibility of keeping an accurate record of the details. On the basis of reports of this nature and stimulated, doubtless, by the intense public feeling in the north, created by the gradually spreading conviction of the lamentable deficiency in the power of the law as applied in the south, congress, through its committee, proceeded to the investigation ordered by the joint resolution to which we have already referred. The result of this investigation appears in the 12 octavo volumes reporting the testimony taken and published among the official documents (senate) of the year 1872. An immense mass of evidence displays the nature and acts of the Ku-klux, and fully justifies the title "conspiracy," which congress bestowed upon that organization. While the Ku-klux may have originated for a minor purpose, it is difficult to believe that this tremendous association of men sworn to fidelity; having its ramifications in every southern state, and the power of life and death in most of them; with a ritual, oath, grips, pass-words, and all the other secret and systematic machinery necessary to the carrying out of the most hidden and dangerous purposes—it is difficult to believe that the real motive and intention of the order were not the subversion of the government of the United States, and the rehabilitation of the leaders of the rebellion. To this end, the negation of the suffrage in the south, and the efforts to defeat reconstruction, may reasonably be supposed to have tended. And whatever diverse opinions may be held regarding the good sense, judgment, and patriotism displayed in the reconstruction acts and the methods adopted to carry them into effect, it is impossible to view without the severest censure the nature of the opposition to them, as conducted by a bloody and revengeful association of cruel and implacable men, crazed by the facility with which murder and incendiarism could be made to do duty for what its members chose to consider retributive justice. Following is the oath of the Ku-klux klan, as it was offered in evidence before the investigating committee of congress: "I (name), before the great immaculate Judge of heaven and earth, and upon the holy evangelists of Almighty God, do, of my own free will and accord, subscribe to the following sacred, binding obligation. I. I am on the side of justice and humanity and constitutional liberty, as bequeathed to us by our forefathers. II. I reject and oppose the principles of the radical party. III. I pledge aid to a brother of the Ku-klux klan in sickness, distress, or pecuniary embarrassment. Females, friends, widows, and their households shall be the special object of my care and protection. IV. Should I ever divulge, or cause to be divulged, any of the secrets of this order, or any of the foregoing obligations, I must meet with the fearful punishment of death and traitors' doom, which is death, death, death, at the hands of the brethren." This sufficiently theatrical obligation becomes impressive when one reflects that its various sections were carried out with absolute rigor, and that disobedience of the orders of the chief of a klan was actually visited with instant death. Thus were the customs

of the *carbonari* paralleled among so prosaic and conventional a people as the Americans so late as 1871. The members of the order were obliged to deny their membership, even when answering as witnesses in a court of law, and were obligated to clear each other by their testimony in such cases or when acting as jurors. The Ku-klux gradually died out as an active organization after the investigation of 1871; and although certain of their methods continued to obtain during the progress of elections in the south, the return to sounder sense and better feeling on the part of the people of that section, and the improving condition of the relations between the north and the south, gradually died away with the passions in which the organization originated. It is reported that there were at one time 550,000 members of the Ku-klux klan in the south, of which number 40,000 are said to have been in Tennessee.

KUL'DJA, KUL'JA, KOOL'DJA, KUL'DSHA, or GUL'DSCHA, a province in the government of Turkistan; 25,500 sq. m.; pop. '71, 114,337; was formerly a part of Soongaria, the extreme n.w. province of China, which country conquered it in 1754 from the Kal-mucks. Some years ago this province declared its independence of China under a native sultan, but in 1871 the Russian government, by agreement with China, annexed Kuldja to its dominions, and this remained its status until 1879, the czar having promised to restore it to the Chinese whenever the latter should occupy the province with a sufficient force to keep it in order and subjection, as against the wild tribes that inhabited it. The defeat of Yakoob Beg afforded to China the desired opportunity to regain this territory, and a demand was made upon the czar for the performance of his promise. A Russian commission was accordingly appointed, and in Sept., 1879, this commission reported a treaty, which was accepted by China. This treaty restored to the latter power four-fifths of the province of Kuldja, the remaining strip of territory being retained by Russia to afford a foot-hold and hold a certain degree of influence in that country.

KULM, or CULM, a c. of w. Prussia; pop. '71, 8,455; one of the four dioceses into which Prussia was divided early in the 13th century. From 1466 to 1772 it formed a part of Poland, but on the first partition of the latter kingdom was restored to Prussia. Its trade is sufficient for the necessities of the people, without being important. Its principal institutions are educational, and include an Episcopal seminary, a cadet school, and a Roman Catholic gymnasium or high school.

KUM, or KOOM, the ancient Choana, is supposed to date back to the 9th c., when it was an independent Arabic principality. It is situated about 80 m. from Teheran, in Persia, on the high road through Ispahan and Shiraz to Bushire, on the Persian gulf; pop. about 8,000. Formerly it was a magnificent city, containing 100,000 inhabitants, but in 1722 it was destroyed during the Afghan invasion, which resulted in the conquest of Persia and its government by the Afghans, until they were expelled by Nadir Shah, 7 years later. The tomb of Fatima, the only daughter of Mohammed, is still shown at Kum. There is considerable local trade by the numerous bazaars, but the manufactures of the place are unimportant.

KUMA'NIA See CUMANIA.

KUMISS, or KUMISH. See KOUMISS, *ante*.

KUNG, PRINCE, b. China, 1835; a member of the Chinese imperial family, chief of the state department, and a member of the imperial ministry, uncle of the late emperor Foungh-chê, and regent of the empire on the accession of the latter in 1861. He is among the party of progress in China, and has advocated freedom of intercourse with foreign nations, and the adoption of foreign customs and inventions. To his influence chiefly was owing the treaty of peace with the French and English after the Pei-He affair in 1860, and likewise the appointment of Anson Burlingame, a citizen of the United States, as envoy and ambassador to the Christian powers in 1868. Made prime minister, he safely conducted China through the Formosa difficulty with Japan, concluding a treaty of peace with that country in 1874.

KUNG-CHOW-FOO. See HAINAN.

KUNTH, KARL SIGISMUND, 1788-1850; b. Leipsic; educated in Berlin, through the influence of Alexander von Humboldt. He devoted himself to the study of botany, had charge of the botanical garden in Berlin, and edited Humboldt and Bonpland's *Voyages aux Régions Équinoxiales*, besides assisting in the arrangement and classification of baron Humboldt's splendid herbarium of 5,000 specimens.

KUNZE, JOHN CHRISTOPHER, D.D., b. in Saxony about 1740; was educated at Leipsic and Halle, and became a minister of the Lutheran church. In 1770 he emigrated to Philadelphia to act as associate pastor of the German churches there. During his residence in that city he was for several years a professor in the university of Pennsylvania. In 1784 he accepted a pastoral call to New York, where he resided for the remainder of his life. He added to his pastoral labors those of professor of oriental literature in Columbia college. He was one of the best Hebrew scholars of his time. Among his published works are a *History of the Christian Religion and of the Lutheran Church*, a *Catechism and Liturgy*, and a *Lutheran Hymn and Prayer Book*.

KUO'PIO, a *län* or government of Finland; 16,498 sq.m.; pop. 238,280. It is comprised in an extensive plain, containing a large number of lakes, and lying immediately w. of Russia; lat. 63° n., long. 27° east.

KU'RILE ISLANDS (*ante*) Japanese name CHI-SHIMA (thousand islands). The name Kurile is Russian, from *kuril*, "to smoke," from the active volcanoes seen from Kamtchatka. Those belonging to Russia were transferred to Japan in 1874 in exchange for the southern half of Saghalien, held by Japan. Immense numbers of seals are annually shot and skinned for their fur by Americans in schooners off these islands.

KURODA KIYOTA'KU, b. in Satsuma, Japan, and took an active part in the war of 1868, and was intrusted with the task of finishing the war by subduing the rebels in Yezo. After some of the fiercest fighting on record between iron-clads and forts and modern war-vessels, Kuroda secured the surrender of Enomoto, the leader, by a personal pledge that no harm should befall him. Though the government condemned Enomoto to death, Kuroda secured his pardon after three years' imprisonment by the assurance, solemnly given, that if harm befell Enomoto, he (Kuroda) would open his bowels by harri-kari. After the war Kuroda was made chief of the Kai-Taku-Shi, a department organized to colonize and develop the resources of Yezo. In 1871 Kuroda visited Europe and America, and in Washington secured the formation of the staff of American geologists and scientific men who have done more for the development of northern Japan and for our scientific knowledge of Yezo than anything before attempted. Horace Capron, Thomas Antisell, M.D., Stuart Eldredge, M.D., maj. Warfield, Henry S. Munroe, James R. Wasson, Benjamin S. Lyman, lieut. Murray S. Day, U.S.N., and others have served under the Kai-Taku-Shi, and their papers in scientific periodicals are rich mines of exact information on special topics. Out of this enterprise grew up the geological survey of Japan, now being carried on by prof. B. S. Lyman. In 1874 Kuroda was made imperial counselor, and in 1876 went to Corea in command of the treaty-making expedition. He has greatly assisted in advancing the cause of female education in Japan.

KURO SHIWO (Black Current). The gulf stream of the Pacific which rises near Formosa, as the westward-northern branch of the north-equatorial current of the Pacific, and flows upward past Kiushiu, Shikoku, and Hondo, islands of Japan, and past the Kurile chain; thence splitting into two branches, the smaller stream passes up through Behring's straits, the main volume scouring the Aleutian or Fox islands, sending a loop around the Alaskan coast; and thence bending southward to California, whence it bends westward past the Sandwich islands, and pursues its way past Formosa and Japan again. The color of the Kuro is of a deep blue, and its warm waters move at the rate of 3 m. an hour. In addition to its scientific and climatic significance and influence on Japan, Alaska, and California, the problem of the origin of the races of America may receive new light through a study of the Japan current. A tree or junk, set in the Japan current, if left to float, will strand on Alaska or California, or even upon the Hawaii islands. For 20 centuries Japanese fishing-boats have been blown or swept into the Kuro Shiwo, and the arrival or stranding of some of them on the coasts of America is not to be doubted. From 1872 to 1876 a record of no less than 49 Japanese junks wrecked, met with or seen on American and Hawaiian shores was made out, and read by Mr. Chas. Wolcott Brooks before the California academy of sciences, Mar. 1, 1875. Further research has disclosed a much larger number of waifs, all Japanese. See the summary in "The Mikado's Empire," p. 579. The similarity of the flora and fauna of the w. coast of North America will be understood from a further study of the Kuro Shiwo.

KURTZ, BENJAMIN, D.D., LL.D., 1795-1865; b. Penn.; was for several years a teacher of ancient and modern languages; studied theology with the rev. Dr. George Lochman; was licensed to preach in 1815 by the Lutheran synod of Pennsylvania; was assistant to his uncle, rev. Dr. J. D. Kurtz, at Baltimore; pastor at Hagerstown and Chambersburg; became editor of the *Lutheran Observer* at Baltimore in 1833, which he conducted with ability for 20 years. Dr. Kurtz took an active part in founding the Lutheran theological seminary at Gettysburg; was the chief founder of the *missionary institute* at Selin's Grove, Penn., and published several theological works.

KURTZ, JOHN NICHOLAS, 1720-94; b. in Germany; studied theology at Giessen and Halle, and in 1745 came as a missionary to the Germans of Pennsylvania and was the first Lutheran minister ordained in the American colonies. He was stationed successively at New Hanover, Tulpehocken, Germantown, and York, but spent much of his time in labors among the frontier settlements, where his life was in constant peril from hostile Indians. During the war of the revolution his patriotism was conspicuous. Died in Baltimore.

KUSKOQUIM RIVER rises in s. central Alaska, in the Chigmit mountains, and flowing s.w., empties into a bay of Behring's sea of the same name. It is more than 500 m. in length, unexplored, and drains a country inhabited only by Indian tribes and Esquimaux.

KÜSSNACHT, a village of Switzerland, in the canton of Schwytz, on an arm of lake Lucerne, at the foot of the Rigi. It is associated with the myth of William Tell. Pop. 2,500.

KUSTENDJI, or **KISTENDJEK**, a fortified seaport of Roumania, in the Dobrudja, on the Black sea, 40 m. e. of Rassoza, at the termination of Trajan's wall, of which some traces may still be seen. It has some trade in corn, but the harbor is exposed and ill-adapted for extensive commerce. The town is connected by rail with Chernavoda, on the Danube.

KÜTZING, **FRIEDRICH TRAUOGOTT**, b. at Ritteburg, in Thüringen, 1807; studied at Halle, and visited s. Europe, especially exploring the flora of the Adriatic coasts. In 1835 he was appointed professor of natural science at Nordhausen. His researches have led him to the same fundamental ideas as those of Darwin. His works are highly esteemed.

KUYP. See **CUYP**, *ante*.

KWANG-SI, or **QUANGSEE**, a province of China, between lat. 22° and 26° n. and long. 105° and 112° 30' e.; pop. 7,313,895. The surface is mostly mountainous. The principal products are cassia, grain, metals, and gems. Nearly all its rivers unite with the Choo-Kiang, which flows eastward and ultimately becomes the Canton river.

KWANG-TUNG, or **QUANGTUNG**, the most south-easterly province of China, contains the important ports of Macao, Canton, and Hong-Kong. It lies on the gulf of Tonquin and the China sea, contains a pop. of more than 19,000,000, and covers an area of 79,456 sq. miles. While the country bordering on the sea-coast is level and productive, the northern part is mountainous. Sugar, tea, rice, tobacco, and fruits are grown in large quantities, and the manufacture of silk, cotton, and lacquered ware is extensive. The rivers of this province are generally used for traffic, with the aid of portages; but, with one or two exceptions, are not navigable for steam vessels.

KWEI-CHU, or **QUEICHOW**, a province in the s.w. part of China; about 65,000 sq. m.; pop. 5,228,219. The capital is Kwei-Yung. It is a rough, mountainous region, with mines of copper, iron, lead, and quicksilver.

KWICKPAK RIVER, the name of one of the outlets or delta arms of the Yukon, the great river of Alaska. It is wide and shallow, and has a length of about 50 miles. The Russians often give this name to the Yukon itself, which rises in British Columbia, enters Alaska near the Arctic circle, and flows with a s.w. trend across the entire width of the territory, more than 1800 m., into Behring sea.

KYANITE (**CYANITE**, *ante*), called also *disthene*, *rhatizite*, *monrolite*, a native silicate of alumina, crystallizing generally in long bladed forms, though sometimes in short prisms, of the triclinic system; hardness 6 to 7½; luster vitreous and pearly; color blue, white, gray, green, and black; translucent, transparent; but the most common color is pale blue, deeper along the middle of the prisms. Analysis of a specimen from Norway by Arfvedson gave: silica 36.4, alumina 63.8 = 100.2. A specimen from St. Gothard by the same analyst gave: silica 34.33, alumina 64.89 = 99.22; another from the same mountain gave: silica 36.9, alumina 64.7 = 101.6. Another specimen from the Tyrol, analyzed by Erdmann, gave: silica 37.36, alumina 62.09, iron 0.71 = 100.16. A specimen from Lincoln co., N. C., analyzed by Smith and Brush, gave: silica 37.6, alumina 60.4, iron 1.6. This mineral occurs principally in gneiss and mica slate. Transparent crystals are found at St. Gothard in the Tyrol; in Bohemia; at Pontivy, France; and Villa Rica, S. A. Kyanite also occurs in Massachusetts, at Chesterfield, associated with garnet, in mica slate; at Litchfield, Conn., in large rolled masses with corundum and massive apatite; in New York at Monroe, Orange co.; in Pennsylvania, in fine specimens on the Schuylkill road near Philadelphia, and near the Schuylkill on the Blue Ridge road, back of Robin Hood Tavern; in Maryland at Scott's Mills 18 m. n. of Baltimore; in North Carolina near Crowder's mountain; and in short crystals at Bellows Falls, Vt. A black variety, associated with rutile, is found in North Carolina. Fine specimens of kyanite are used as gems, and have some resemblance to sapphire (q.v.).

L

LABADIE, **JEAN DE**, 1610-74; b. Bourg-en-Guienne; educated in the Jesuits' college at Bordeaux, he entered their order and distinguished himself as a preacher. He exposed the abuses in the Roman church and urged reform; but finding no encouragement in his order, he left it and joined the Fathers of the Oratory in 1639, and soon after the Jansenists. In 1640, appointed canon of Amiens, he introduced reforms, holding meetings for the reading of the Bible, and administering the Lord's supper in both kinds to the people. Persecuted by the Jesuits, he became in 1650 a Protestant, and was for eight years pastor of the church at Montauban. In 1657 he was pastor in Orange, and in 1659 in Geneva. Here he exerted himself with great zeal to restore apostolic religion, and by his earnestness, sanctity, and austerity gained many followers. In 1666 he became pastor of a Walloon church in Middleburg, Holland; but still persecuted by his enemies, he left it, and went in 1669 to Amsterdam, where his followers soon formed a distinct sect called Labadists. It included many of rank and education, among whom were two ladies, the learned Anna Marie von Schurmann, and the authoress, Antoinette Bourignon. Expelled from the country as a separatist he went in 1670 to Erfurt, where he was pro-

ected by the princess Elizabeth who, through the influence of Anna Marie von Schurmann, became a disciple. Driven from this place in 1674, he went to Bremen and then to Altona, where he died. He left numerous works. The Labadists did not differ entirely from the Reformed church, but adhered to its doctrinal symbols. They were a sect of mystics who sought reform of life rather than of doctrine. They supported themselves by manual labor; and, after the example of the primitive church, held property in common; laid great stress on the internal light as indispensable for the understanding of the Bible; rejected infant baptism and the observance of holy days. They have been charged with immorality by some Roman Catholic writers, but without reason. They honored the institution of marriage. After Labadie's death his followers settled at Wiewert, but made few converts, and in the beginning of the 18th c. the sect became extinct. A few of them came to the United States and settled on the Hudson, but gained no permanence as a sect.

LABAGH, PETER, D.D., 1773-1858; b. N. Y.; descended from French and Holland ancestry, received a classical education under the direction of Dr. Peter Wilson of Hackensack, N. J., afterwards professor of Greek and Latin in Columbia college. In 1796, having studied theology with John H. Livingston, D.D.,—who had studied at Utrecht, Holland, and was afterwards president of Rutgers college, New Brunswick, N. J., and was considered the father of the Reformed Dutch church in America, he continued his studies with prof. Froeligh of the same denomination. Subsequently he went as a licensed missionary to the western part of New York state, and from thence to Mercer co., Ky., where he established a church. Soon after, on returning to his native state, he was installed as pastor of a church in Greenbush, near Albany, remaining there until 1809, when he was given the charge of the church in Harlingen, which he held 35 years. He was distinguished for the soundness, accuracy, and acuteness of his judgment, and the celerity with which his mind arrived at sound conclusions; also for a cheerful and happy disposition, rendered sweet by the pure spirit of habitual piety that pervaded his daily life. He was prominent in all the conventions of his denomination, carrying conviction to the mind of his hearer in controversial argument, as well as in seasons of religious interest; the revival of 1831 especially sustaining the popular estimate of his powers as a convincing expounder of the Word. He was successful in raising funds for the endowment of the theological seminary of the Reformed Dutch church, at New Brunswick, N. J. In 1860 a memoir of him by John A. Todd was published.

LABARRAQUE'S SOLUTION, or LABARRAQUE'S DISINFECTING LIQUID, or SOLUTION OF CHLORINATED SODA, a disinfecting liquid first brought into notice by Labarraque, a Paris apothecary. It is prepared by mixing solutions of chlorinated lime, commonly called chloride of lime, and of carbonate of soda (sal soda). Twelve ounces of chloride of lime, 24 of sal soda, and 24 pints of water are the proportions used. The sal soda is dissolved in 3 pints of water, and the chloride of lime is triturated in a mortar with a portion of the water, a little being added from time to time, until the mixture is homogeneous. The remainder of the water is then added to this mixture, which is set aside for 24 hours. The upper portion will be clear; this is to be decanted off, and the residue passed through a muslin strainer until with the decanted portion there are 8 pints. This quantity is then thoroughly mingled with the solution of sal soda, and passed through a muslin strainer, and, if necessary, water added sufficient to make $11\frac{1}{2}$ pints of liquid, which is to be kept in glass-stoppered bottles. Its specific gravity should be 1.045. It has been recommended to use bicarbonate of soda instead of common carbonate, or sal soda, because the precipitate of carbonate of lime is rendered thereby more crystalline, and therefore more readily precipitated, rendering the filtration more easy. It is also advised to have the bicarbonate of soda somewhat in excess. Labarraque's solution is a transparent liquid of a greenish yellow color, having a sharp, bitterish taste and an alkaline reaction. If lime-water be added a precipitate of carbonate of lime will be produced. It is a powerful disinfectant and bleaching agent, rapidly destroying the color of sulphate of indigo. There has been a good deal of discussion in regard to the precise constitution of this liquid, but it is generally regarded as a mixture of hypochlorite of soda, chloride of sodium, and bicarbonate of soda (using the more common names). According to Millon, the solution contains oxychloride of sodium NaCl_2O . Its use in medicine is as a gargle in putrid sore-throat (or diphtheria, q.v.) and in certain cases of scarlet fever, and also as a dressing or wash to gangrenous wounds. In such cases it must be diluted. It is also sprinkled over the floors of sick rooms or hospital wards, or exposed in shallow vessels. It is sometimes administered internally in zymotic diseases, in doses of from 20 to 30 drops, diluted in half a tumbler of water. It is a convenient and agreeable form of chlorine for the housekeeper in bleaching small articles, such as handkerchiefs, which may be readily bleached by adding half a teacupful of the solution to 4 or 5 quarts of water in an earthen wash-bowl, immersing the articles, and exposing them in immersion for a short time to the sunlight or at an open window, stirring from time to time, and afterwards thoroughly rinsing them in clear water.

LABAT, JEAN BAPTISTE, 1663-1738; b. Paris; entered the order of the Dominicans in 1685; was appointed professor of mathematics and philosophy at Nancy in 1687; went in 1693 as a missionary, first to Martinique, then to Guadaloupe, where he remained

till 1705, distinguishing himself as an engineer and agriculturist. On returning to Martinique he was appointed *procureur-général* of the mission, and by successive governors highly esteemed for his scientific and diplomatic labors. He founded in 1703 the city of Basse-Terre, and took an active part in defending the island of Guadaloupe against the English. He organized a company of 60 negroes, who, it is reported, distinguished themselves by their efficiency and bravery. He returned to Europe in 1705, to obtain recruits for his order, but was detained by his superiors at Rome until 1709, and at Civit  Vecchia till 1716. The remainder of his life was passed at Paris, where he died.

LAB'DANUM. See CISTUS, *ante*.

LA B DOLLI RE,  MILE GIGAULT DE, b. France 1814. While pursuing his primary legal studies he published a satirical poem entitled *Eloge du Gouvernement*, for which the government prosecuted him. The young poet defended himself before the court with wit and tact, and was acquitted. Deciding to live by his pen he set to serious work, and composed an essay on the life of Lafayette. It attacked the party of conciliation which Lafayette represented. The young men of that time (the early years of the reign of Louis Philippe) were addicted to wit at the expense of all opinions not thoroughly partisan on one side or the other; and young B dolli re's work was applauded by the radical republicans. He then launched into political journalism as editor of the *Coin de feu*, and contributed to a great number of journals and reviews. He became imbued with the doctrines of St. Simon, and his associations led him to more philosophical views. In 1849 he became and has remained one of the editors of the *Si cle*, in which his work was little relished by the clerical party and proportionally popular with other readers. His literary fecundity is extraordinary. Essays, editorials on the passing political situations, poems, romances, and translations in various languages, follow each other in quick succession. Among the great number of his works may be mentioned *Soir es d'Hiver*, 1838; *Beaut s des Victoires et des Conqu tes de Fran ais   1792   1815*, 1839; *Les Industriels*, 1845; *Histoire de la Garde Nationale*, 1848; and *Nouvelle Moral en Action*, which has been commended by the Catholic episcopacy and used in some of their seminaries. His translations embrace some of the novels of Fenimore Co per, Walter Scott, Capt. Marryat, Mayne Reid, and Dickens. His latest important work is entitled *M urs et Vie priv e des Fran ais*, in three large volumes. But it is for his tact, variety, and incisive style as editor of the *Si cle* that B dolli re is best known. He seems in his declining years to be among the French what Oliver Wendell Holmes is to the Americans—loved, admired, and respected, for a genius both sunny and solid.

LABEL, a term which signifies at once an inscription identifying or defining the article to which it is affixed, and the medium which bears or conveys the same. Thus, a label may not necessarily bear any inscription, and still sustain one definition of the term. Labels are employed for identification, and also to signify the destination of packages to be transported from one place to another; as book-labels, to assist in cataloguing libraries in the one instance, and express-labels in the other. The etymology of the word exhibits its derivation from the Latin *labellum*, a diminutive, signifying "a little lip," and referring, in this use of it, to the "tag," or slip of parchment by which leaden seals were attached to documents, in ancient times. In law, the term label has a specific significance gained from its connection with proprietary rights; for which see TRADE-MARKS.

LABETTE, a co. in the s.e. part of Kansas, bordering on the Indian territory; drained partly by the Neosho, partly by the Labette, and partly by affluents of the Verdigris; 649 sq m.; pop. '80, 22,736. The surface is undulating, the soil fertile. Wheat, corn, oats, cattle, and hay are the staple products. Deposits of coal and limestone exist in some localities. The county is intersected by the Missouri, Kansas, and Texas railroad, and the Neosho Valley division of that road terminates in it. Valuation of real and personal property, \$4,110,515. Capital, Oswego.

LABIS, a Greek word meaning "a spoon." An implement employed in the Greek church in the administration of the elements in the Lord's supper; the bread being mingled with the wine, and both administered together.

LABIENUS, TITUS, B.C. 98-45; was tribune in 63 when Cicero was consul; lieutenant of C sar in the Gallic war, and afterwards pr tor. In 54 B.C. he twice defeated the Treveri, and in 52 distinguished himself in the campaign against Vercingetorix. When the civil war broke out he sided with Pompey, and treated with cruelty C sar's soldiers who fell into his hands at Dyrrhachium. After the defeat at Pharsalia he went to Africa, and thence, after the defeat at Thapsus, to Spain, where he fought against C sar at Munda, where in a panic his troops were routed and he fell.

LABILLARDI RE, JACQUES JULIEN HOUTON DE, 1755-1834. He became famous for his researches in botany, natural history, geology, zoology, and anthropology at a time when all these studies were in their infancy. Among his valued works is: *The Relation of the Voyage in Search of La Perouse in the Arctic Sea north of Asia and Europe*. Commander of a scientific expedition sent out by France in 1785 to discover a northwest passage, and never heard of after it entered that fatal sea. This report of Billardi re contained a great mass of facts in natural history. *The Flora of New Holland and New Caledonia* was the fruit of another voyage, and a work of the highest value in its day.

LABOR (*ante*). It is undoubtedly correct to divide human labor into two kinds, mental and physical; and to concede that without the one there could hardly be the other. It is only among the most laborious and industrious races that we find the most comprehensive and productive mental effort. That is, where the physical labor is the most varied and inventive. The Esquimaux are perhaps the most severely tasked by the necessity for arduous physical effort, of any race; and they are doubtless among the lowest in the order of mental accomplishment; but these facts do not disturb the proposition, since the labor of the Esquimaux extends but in one direction—the protection and perpetuation of life. So far as the history of man has been traced, there has been found no condition of existence unaccompanied by labor, both physical and mental, the latter, certainly, in the earlier periods, devoted simply to the direction of the former towards the only absolute necessity, the sustenance of life. This brings us by way of a circle to our beginning, that mental labor must precede physical labor, while it can only increase and extend with the increase and extension of the latter. Which is to say that while a mental impression of the condition of hunger, and mental inquiry as to the existing means for allaying it, must precede the physical effort to procure such means—mental effort will not proceed beyond this point, except correlatively with the progress and extension of physical labor. It should then be borne in mind that in considering one kind of labor we are including the other, so intimate is the relation between them; and that the ratio of mental activity is in proportion to the multiplication of the varieties of physical labor. Such knowledge as we possess of prehistoric races has been derived from existing results of their labor, naturally of the most primitive character, rough-hewn implements and weapons of stone giving that period of human existence the distinctive title of the “stone age.” This period was followed by the *neolithic* or new stone age, in which these implements and weapons were more highly finished and polished, and better adapted to their purpose. After this came the discovery of the metals and what is termed the “bronze” age, since which time there has appeared to be no possible limit to the extension of human labor, or to its resources in ways and means. As implements multiplied, wants increased, and the history of the human race is in fact a record of the wants of man and his devices for supplying them. One such device made its appearance very early in history, that of a division of labor, by which one individual became the fisherman, another the hunter, and a third the tailor of a settlement or group—such groups having originated in the instinct of self-preservation by numbers, and in the law of the value of numbers as a factor in labor. On this principle, too, originated the soldier, or guard, whose duty it was to watch while others worked; and the messenger, or carrier, inefficient to originate, but useful to carry out the designs of those better qualified. The exercise of labor, and particularly after this had become comparatively skillful, involved the accumulation of wealth—in stores of food, arms, clothing, or building material, which in turn aroused the sentiment of cupidity in contiguous groups of men; and this being carried to the extent of a forcible attempt at possession, resistance followed, and war, with its attendant elements of killed, wounded, and prisoners, ensued. The accumulation of prisoners must soon have become an irksome product of success, and primitive ingenuity cast about for relief from this very positive and threatening burden; and it could not have been long before the idea of the enforced labor of prisoners dawned on the minds of the conquerors in battle. From this idea, in part at least, arose the institution of slavery.

The tendency to organize, out of which springs all system, found expression in slavery from its very beginning. The earliest records and the most ancient inscriptions and mural paintings tell of slave-gangs and task-masters, and at length of the classification of slaves by their duties. This was at once a simplification of labor by co-ordination of its processes; and a necessity to the existence of the slave-holders themselves, since the prevalence of a condition of war produced slaves in such numbers that they could not possibly have been controlled without rigid system and discipline. The time and place of the origin of slavery are unknown. Nearly all the ancient races practiced it, and we may well believe that it grew out of an inherent impulse in human nature, and was spontaneous among different races, whenever the conditions existed rendering it practicable. It can be traced by internal evidence to a period 3,000 years before the Christian era, though it was not until the time of the greatest prosperity of the Phenicians that the custom of buying and selling slaves was originated—and by that remarkable people. Probably in no other country did slavery reach the same condition of development as in Rome. Obtaining the institution from Carthage, Rome soon outdid its teacher in the numerous and systematic methods by which the system was applied for the supply of real and imaginary wants. To Carthage the world was indebted for the displacement of the existing system of yeomanry farming, and the substitution of slave-labor in agriculture. Carthage had received the system from Phenicia, a commercial and manufacturing country, and had adapted it readily to the conduct of agriculture on an enormous scale by wealthy landholders. Rome adopted the same practice, but added to it an organization of slave-labor for the performance of official and domestic duties, on a scale so comprehensive as never to have been since equaled in this particular. The Roman slave-holding system comprised two classes, public and private, the former including the slaves of the state, the latter those of individuals. The former were employed in public works—building, road-making, as rowers in the galleys, etc.;

the latter were divided into two kinds—rustic, and urban or domestic. The whole number of these slaves were divided into as many as 250 different classes, each representing some specific duty or employment. In the time of Sylla there are said to have been 13,000,000 slaves in Italy. The fall of the Roman empire brought about the establishment of the feudal system in Europe, while the advance of Christianity gradually did away with the institution of slavery. Meanwhile, it was not extraordinary that out of the old order of things there should have grown into existence conditions, modified, but similar to those which preceded them, which should, in turn, have exercised their just influence upon civilization. Thus, in the institution of guilds which began to be prevalent about the 12th c., we see the influence of the slave classification of ancient Rome and Carthage, and the distributed labor education which resulted from the division of labor. The institution of the guild was the protest of the laboring class against feudalism. Originating in the Anglo-Saxon family system, it became intrenched behind the growing strength of Christianity, and gradually assimilated with it all the forces that were inimical to the control of the laboring class by the feudal barons and other potentates. Through the influence of the guild hand-labor became a power, hand-laborers were artists, and the golden age of manual skill arrived. In the work of the loom, in metal-working and wood-carving, in the manufacture of pottery and glass, this period has never been equaled. Artists like the Della Robbias, Ghiberti, Andrea del Sarto, and Benvenuto Cellini ennobled labor. But the age became luxurious, and the masterpieces of art labor centered in a few hands. As has ever been the case in history, interests conflicted, wealth tended to centralize and consolidate itself, the guilds divided among themselves into plodders and those who accumulated the results of their toil, vast operations in trade became possible to those who possessed the necessary enterprise and skill, and so *capital* was born as a new factor in the utilization of labor, and a new enemy for the laborer to confront and to antagonize. The influence of the new force was speedily felt, and the tendency to exclusiveness and monopoly on the part of the wealthy awakened in the workers the idea of organization, and there grew up an independent *working-class* for the first time in history. Now, too, for the first time in its application to large and organized bodies of laborers, the wage question took prominence. This arose primarily from the effect upon population of the terrible plagues and famines, which, beginning about the middle of the 14th c., began to devastate Europe. The depopulation of countries resulted in a scarcity of laborers, but every attempt on the part of the latter to insure the adoption of a higher rate of wages on this account met with strenuous and persistent opposition from employers. The introduction of the factory system, and the application of power to machinery, in the manufactures, strengthened the hands of the employers, and correspondingly weakened the employed. Meanwhile, warfare was unceasing between the two, and the necessities of the case brought about the conception of the *trade-union*, in the latter part of the 18th c., and this institution has continued to thrive and to combat capital ever since. The history of labor in the United States has been mainly influenced by questions of wages and hours of service, by immigration, by the introduction of the trade-union, and by the institution of negro slavery. The enormous displacement of human by machine labor, and the practical abolition of the apprentice system through foreign influence, have also largely complicated the labor question in America. For further information on these points, see TRADE-UNIONS; SLAVERY; MACHINERY; GUILDS.

LABORATORY. This term is generally applied to establishments for conducting chemical or physical investigations, or for chemical manufacture. Chemical laboratories may be for purposes of instruction, as are those which are attached to colleges or other high schools. These institutions also sometimes have special laboratories for research. All large private manufacturing establishments where chemical processes are employed to a considerable extent have laboratories attached to them in which investigations are carried on; many of them in the nature of preparatory trials of processes, to facilitate the process of manufacture. A government manufactory is sometimes called a laboratory, and so are many smaller private establishments, as pharmaceutical laboratories, metallurgical laboratories, telegraph laboratories, etc. The workshop of a taxidermist is often, and properly, called a laboratory. It is interesting in studying the history of chemistry to observe the great change that has gradually taken place in the appliances and apparatus used in the laboratories, and also in some cases the similarity of process. Much of the old apparatus was very complicated, a natural result of the complex manner of thought resulting from newly-formed theories or speculations; it was apparatus made for the trial of things which seemed extremely occult. Heat, however, performed a very important part in the old alchemist's operations, as well as in those of the modern chemist, and furnaces of various kinds have, therefore, always formed a part of laboratory furniture; but the modern forms of furnace or heating apparatus are much more efficient than the old, on account of the employment of elementary factors of combustion, whose more widely separated electro-chemical properties cause more intense union, and therefore greater evolution of heat. The oxy-hydrogen blowpipe was not used until Priestley's discovery of oxygen, the previously-known hydrogen, phlogiston, or inflammable air, being until then a comparatively inert body.

LABORDE, ALEXANDRE LOUIS JOSEPH, Comte de, 1774-1842, b. France; son of Jean Joseph; author of an elaborately illustrated work on the history and scenery of Spain; the monuments of France; pictorial travels in Austria, etc. At times he was in the French legislative assembly, where he gave a firm and consistent support to the liberal side in politics known as the left center.

LABORDE, JEAN JOSEPH, Marquis de, 1724-94, b. Paris; remarkable for having quickly amassed a great fortune, and for the beneficence of his use of it. He commenced life poor, but his activity and skill in commercial affairs and fortunate opportunities made him early rich. He loaned largely to the French government, became banker of Louis XV., and advanced money to carry on the war with England when in 1778 France allied with the United States to achieve their independence. His generosity was proverbial. He became the founder and supporter of a great number of charitable institutions in Paris, consecrating each year nearly \$100,000 of his income to charities. In 1788 he gave between one and two million dollars to aid in the construction of hospitals. On loans to benevolent institutions he would often refuse interest. The royal family having often been helped by him during the revolution of 1789, he became suspected by the Robespierrean junta, was condemned for sympathy with aristocrats, and met his death by the guillotine.

LABORDE, LÉON EMMANUEL SIMON JOSEPH, Comte de, 1807-69; b. France; son of Alexandre L. J. Gifted by nature with artistic taste and skill, he devoted his life to works calling it into exercise. His first important publication was an elaborately illustrated work on Asia Minor, Syria, Arabia Petrea, and the valley of the Nile. He was subsequently secretary of Chateaubriand in the embassy to Rome; aide-de-camp to Lafayette during the revolution of July, 1830, and then secretary to the embassy to London. In 1836 he resumed artistic work, and thenceforward was constantly in public service where his archæological learning and skill in drawing could be made effective. The very long list of his published works, mostly architectural, shows extraordinary industry and aptitude in art work.

LABOR STRIKE. See **STRIKE**.

LABOUCHÈRE, HENRY, Baron TAUNTON, 1798-1869; b. England; of French descent, his ancestors having left their country at the time of the revocation of the edict of Nantes. They settled in Holland, where the father of Henry was a partner in the banking-house of Hope & Co., of Amsterdam. The latter was educated at Oxford, settled in England, and married a daughter of sir Thomas Baring. In 1826 he was elected to parliament from St. Michael's, and about the same time made a visit to America to observe the peculiarities of life in the United States, and to study the working of its institutions. He became a strong liberal in English politics, and for many years was identified with the support of the measures and the initiation of the policy of the party of progress. He retained his seat in parliament by successive re-elections until 1859, when the title was conferred upon him which made him a peer. From 1832 to 1838 he occupied continuously offices of high responsibility in the English government, closing with that of secretary of state for the colonies. He had no heir, and his title is extinct.

LABOUCHÈRE, PIERRE ANTOINE, b. Nantes, 1807; educated in Germany and England for a commercial life, but ardent with desire to become a painter. He visited the United States in 1827 as secretary of an American banker, and soon after made a voyage to China on a merchant ship. Afterwards, enabled to cultivate his taste for painting, he studied in Italy, then in Paris, and completed his pupilage under Delaroche. Protestant in religion, the subjects of his works were largely drawn from the actors and history of the reformation.

LABOULAYE, EDOUARD RENÉ LEFÉBVRE, b. Paris, Jan. 18, 1811. Considered in the versatility of his genius, and the noble directions in which his learning, industry, and wit have been used, he is one of the eminent men of his time. He was a student of law, early in life devoting himself to the history of continental laws with singular energy and intelligence. At the age of 28 he became known by an elaborate work entitled *History of Landed Property in Europe from the Time of Constantine to Our Day*, 8 vols. (Paris, 1839). In 1842 he published an essay on the life and doctrines of Frederic Charles de Sevigny, and became an advocate in the royal court of Paris. He was engaged at this time on an elaborate work, which appeared in 1843, entitled *Researches on the Civil and Political Condition of Women from the Times of the Romans to the Present*. In 1845 he published the *Essay on the Criminal Laws of the Romans Concerning the Responsibilities of Magistrates*. Each of these works was crowned on its appearance by the academy of inscriptions, and the same year he was elected a member of that institution. All these works attracted great attention among the learned, and contributed to revive in France the study of the history of law. To erudition he joined original views, and great simplicity and clearness of expression, forming a style at once concise, quaint, and elegant. These qualities have become still more remarkable in his later and more imaginative and satirical works. In 1849 he became professor of comparative legislation in the college of France. Under the empire of Napoleon III. he associated with the men who endeavored to revive public spirit in France. He wrote with enthusiasm and intelligence on the institutions of free

America to induce his countrymen to adopt the progressive spirit of its people. His lectures on this country, during and after the war for the preservation of the union, were extremely popular in Paris, and served to keep a sufficient weight of French sentiment on the side of the union and against slavery to prevent Napoleon from throwing the weight of his power openly against our government. M. Laboulaye is a man of handsome personal presence and winning address. His lectures on law are attractive even to those who have no interest in its study.

In 1863 M. Laboulaye published one of the first of the imaginative and satirical works which have since made him, for the time being, quite as famous a satirist as jurist. This was a little volume, entitled *Paris in America*, in which he humorously employs a supernatural agency to transport a Frenchman with his family into the midst of American family life and town excitements at a period when disaster had come to the national arms during the war for the union. The veiled drollery of the situations by which he lampoons some of the peculiarities of the Napoleonic government, making them ridiculous while defending them with all the ardor of French patriotism, is among the best specimens of irony extant. This book went through upwards of 30 editions in Paris, and was admirably translated into English by Mary L. Booth, of New York. In a similar vein of political satire were his tales of Bluebeard, *The New Bluebeard* and *The Poodle Prince*, *Prince Caniche*, published subsequently. The latter appeared in 1868, ran through many editions, and did much to pave the way to the easy dropping out of the Napoleonic dynasty two years later.

The following list of M. Laboulaye's works, in addition to those already referred to, exhibits the intellectual activity and scope of his life, viz.: *History of the United States*, 8 vols. (1854); *Contemporaneous Studies of Germany and the Slavic States*, 12 vols. (1854); *The Tables of Bronze of Malaga and Salpeusa* (1856); *Souvenirs of a Traveler* (1857); *Religious Liberty* (1858); *Studies upon Literary Property in France and England* (1858); *Introduction to Fleury's French Law* (1858); *Abdallah, an Arabian Romance* (1859); *The United States and France* (1862); *The State and Its Limits* (1863); *Essays on the Politics of M. de Tocqueville* (1863); *The Liberal Party, Its Programme* (1864); *Constitutional Republic* (1871).

M. Laboulaye has also translated from English into French, *Walter On the Law Proceedings of the Romans*; Channing's social works, and Channing *On Slavery in the United States*, with an essay on his life and doctrines; also, Franklin's *Memoirs and Correspondence*, with an introduction. His contributions to French reviews, legal and political, and to the journals of Paris, have been numerous and have had great influence.

LABOURDONNAIS, or LABOURDONNAIE, BERTRAND FRANÇOIS MAHÉ DE, 1699-1755; b. in St. Malo; a French naval officer, who entered the service of the French East India company as a lieutenant in 1718, and was promoted to the position of captain in 1724. In 1734 he became gov.gen. of the isles of France and Bourbon, and received command of a squadron in 1741. In the war between England and France he gained a splendid victory over an English fleet, near Madras, and captured that town in 1746. He was recalled to France in 1748 and imprisoned in the Bastille for 3 years, owing to unjust accusations which were brought against him by Dupleix, gov.gen. of the French Indies, who was jealous of his success. In 1751 he was tried by a commission appointed by the council of state, and acquitted. He was restored to liberty, but his spirit was crushed and he died in poverty in 1755. His life has been written by his grandson, the actor Bertrand François Mahé, and his talents and virtues are praised by Saint-Pierre in the preface to *Paul and Virginia*.

LABRADOR TEA, a low evergreen shrub, belonging to the heath family, found in moist places from Pennsylvania northward. The leaves when crushed are fragrant, and are used by the people of Labrador as a substitute for tea. It is also found in the n. parts of Europe, and it is reported that the leaves are used in Russia for tanning leather, and as a substitute for hops in brewing. The plant is said to possess narcotic properties.

LABROUSTE, PIERRE FRANÇOIS HENRI: b. France, 1801. Admitted in 1819 to the *école de beaux arts*, he won the second prize in architecture the following year, and the first prize in 1824. He then studied in Rome, returned to Paris in 1829, and designed the picturesque façade of the new *palais de beaux arts*. In 1837 he designed the hospital of Lausanne; the following year the library of St. Gèneviève. He was one of the first architects to make artistic use of iron carpentry, and in the reconstruction of the library of St. Gèneviève his work of that kind was original enough to be both greatly ridiculed and greatly admired. From 1843 to 1867 he was constantly engaged on public works in the government service.

LACAILLE, NICOLAS LOUIS, l'Abbe de, 1713-62; b. France. Educated for a priest, he renounced his vocation to devote himself to astronomy. Studying alone and without observatory, at the age of 23 he surprised men of learning by his advancement. In 1736 he became connected with the royal observatory, and continued in distinguished astronomical service till death. In 1750 he was placed in charge of an expedition to the cape of Good Hope to make observations of importance from that point; in connection with which he addressed a circular letter to all the great astronomers of other countries to unite with him on a basis of observations laid down by him. Later, his work traversed

nearly every department of astronomical science, and subsequent progress in astronomy has served to show the wonderful accuracy of Lacaille. His published works are numerous and of the highest rank of his time.

LACANDO'NES. an Indian tribe of Central America. Their territory formerly embraced a large part of n.w. Guatemala, Chiapas, and Tobasco; but they appear now to be confined chiefly to the fastnesses of the Chico mountains. They were formerly aggressive and cruel, and did much to retard the prosperity of the European colonies. They have intermingled with the Choles and Manches, and are now shy and timid. They speak a dialect of the language of the Mayas of Yucatan, of which they are probably an offshoot. They are subject to the laws of Guatemala, but preserve the religion and habits of their forefathers; and their territory, the full extent of which is somewhat uncertain, remains in its ancient condition. The story which the cura of Quiché told Mr. Stephens, that they had large cities and towns and great temples, is incredible.

LACEDÆMON. See **SPARTA**, *ante*.

LA CERDA, the name of an ancient Spanish family which traced its genealogy to Fernando, eldest son of Alfonso X. of Castile, called *La Cerda*, or the horse's mane, from a tuft of hair that grew upon his shoulders. This prince married Blanche, a daughter of St. Louis of France, and died in 1275, leaving two sons, Alfonso and Fernando, heirs to the crown. But Sancho, son of Alfonso X., claimed the succession, and procured his proclamation before his father died. Alfonso's wife, Yolande, escaped from Castile with her grandchildren, finding a protector for them in her brother, Don Pedro, king of Aragon, or in their uncle, Philip the bold of France. These sovereigns conspired to keep the young princes prisoners in Aragon, and their grandmother returned to Castile. Blanche, the mother of the princes, protested in vain against their imprisonment. When Alfonso X. died in 1284 he left a will making Alfonso and Fernando de la Cerda his heirs, and unconditionally disinheriting Sancho, by whom his life had been so much embittered. But Sancho was already on the throne, and the rightful heirs could not dispossess him. At length the king of Aragon, wishing to vex the king of Castile, set the princes of La Cerda at liberty, and they were proclaimed at Badajoz and Talavera; but they were unable to maintain their pretensions and retired into France in the reign of Philip the fair, where they concerted plans to enforce their claims. But their plans failed, and at length a son of Sancho succeeded to the throne. The kings of Portugal and Aragon, being requested to act as mediators, decided in favor of the son of Sancho, but stipulated that three cities should be ceded to Alfonso to enable him to maintain the dignity of his royal birth. Alfonso accepted these hard terms and was thenceforth known as the Disinherited. He died in 1325, leaving two sons, one of whom, Carlos de la Cerda, known also as Charles of Spain, was appointed by king John in 1350 constable of France. But a rivalry springing up between Charles of Spain and Charles the bad, king of Navarre, the former, while on a visit to his young wife in Normandy in 1354, was assassinated by agents in the pay of the latter. In 1425 the house of La Cerda became extinct, but it is still represented in the female line by the dukes of Medina-Cœli.

LACEY, WILLIAM B., D.D., 1781-1866; a missionary of the Protestant Episcopal church in Chenango co., N. Y., in 1818, afterwards for 20 years rector of St. Peter's church at Albany, and professor of theology in the university of Pennsylvania, in Philadelphia. He was the author of several text-books on rhetoric and moral philosophy, for the use of schools. From 1856 to 1866 he revised a *History of the English Church Prior to the Time of the Monk Augustin*, and some of his most valued essays and sermons, which he intended to have published.

LACHES (*ante*). The courts will not charge with laches an infant or married woman or insane person, or any party under legal disability. Equity will not, in general, relieve in favor of a party guilty of laches; but it is otherwise where the rights of the party seeking relief were doubtful or he was ignorant of them.

LA CHINE. See **CHINE**, *LA. ante*.

LA'CHISH, a city of the Amorites, in s. Palestine. The king of Lachish and four others were routed by Joshua at Bethhoron and Lachish was destroyed. This town was remarkable for its strength. It was rebuilt, fortified, and garrisoned by Rehoboam, and was regarded after that time as one of the strongest fortresses of the kingdom of Judah. It was attacked by Sennacherib on his way from Phenicia to Egypt, and probably taken, though this is not stated in the Bible or Josephus, but its siege is depicted on the slabs found by Layard in one of the chambers of the palace at Kouyunjik. After the captivity it was reoccupied by the Jews. No modern vestige of the site or name has been discovered.

LACHRYMATORY, the name applied to small bottles found in ancient tombs, and supposed to contain the tears of the deceased's friends. These phials are made of glass or earthenware, with a long neck, and the mouth formed, as was thought, to receive the eye-ball. The figure of one or two eyes has sometimes been found impressed upon them. It is more probable, however, that they contain aromatic balsam, or such liquids as were used for preserving the body.

LACKAWANNA RIVER, rises in Susquehanna co., Penn., and flows s. to Carbondale, whence it runs s.w. in Lackawanna co., entering the Susquehanna at Pittston. Rich mines of anthracite coal are found in the valley of this stream. Scranton and Carbondale are the principal towns upon its banks. The s.w. part of the Lackawanna valley opens into that of Wyoming, and the two together form one long, narrow valley nearly coinciding with the Wyoming and Lackawanna coal basin, which is over 50 m. long, and passes through Lackawanna co. in a n.e. and s.w. direction. Nearly half of all the anthracite mined in the United States is taken from this basin.

LACLEDE, a co. in s.w. central Missouri; drained in part by the Gasconade and its Osage fork, and in part by the Grand Anglaize, which rises in it; about 750 sq.m.; pop. '80, 11,524. The surface is hilly, and extensively covered with forests of hard timber. Wheat, corn, oats, and pork are the chief productions. The county is intersected by the St. Louis and San Francisco railroad. Valuation of real and personal property, \$3,000,000. Capital, Lebanon.

LACLÈDE, **PIERRE LIQUESTE**, b. France; resident of New Orleans in 1762; grantee, under a charter from the director general of the colony of Louisiana, of the exclusive right to trade in furs with the Indians on the Missouri river; organizer under that charter of the Louisiana fur company, and founder of the city of St. Louis, where he located the company's warehouses and stores, laid out a town, and named it in honor of his king, Louis XV.

LA CONDAMINE, **CHARLES MARIE DE**, 1701-74; b. Paris; educated at the university of Paris; entered the army in 1719; was present at the siege of Rosas, where he distinguished himself. He soon left the army and joined an expedition to explore the coasts of Asia and Africa. In 1735 he was sent by the academy of sciences, with Bouguer and others, to Peru to measure a meridional arc for the purpose of determining the figure of the earth. He returned to France in 1743, and published accounts of the work of the commission in 1748 and 1749. His account of *caontchouc*, published in 1751, was the cause of the introduction of this valuable substance into Europe. He became a member of the royal society of London in 1748, and in 1760 of the academy of sciences of Paris. He promoted inoculation for small-pox, and left a number of treatises on physics, natural history, and geography. He discovered the deflection of a plumb-line by the attraction of a mountain near by.

LACONIA, or **LACONICA**. See **SPARTA**, *ante*.

LACORDAIRE, **JEAN THÉODORE**, 1801-70; the brother of père Lacordaire; was educated for the law, but became a naturalist from predilection. He traveled extensively in South America, prosecuting investigations in natural history, and on his return to France contributed to the various scientific publications, being also attached to the Paris daily press. Having been appointed to the chair of zoology in the university of Liège, in 1850 he was made dean of the faculty of sciences. He wrote *Faune Entomologique des Environs de Paris*; *Histoire Naturelle des Insectes*; *Genera des Coléoptères*; and *Introduction à l'Entomologie*.

LAC QUI PARLE, a co. in w. Minnesota, bordering on Dakotah, bounded on the n.e. by the Minnesota, and intersected by the Lac Qui Parle river; pop. '80 4,907. The surface is nearly level and the soil fertile. Capital, Lac Qui Parle.

LACRETELLE, **PIERRE LOUIS**, 1751-1824; b. France; educated for the practice of law he drifted, by the philosophical tendency of his mind, into authorship, and first became known by the humanitarian direction of his essays. In Paris he was made one of the editors of the *Grand Répertoire de Jurisprudence*. In 1784 he published several essays, one of which, a discourse on the prejudices which attach to infamous punishment, was crowned by the academy of Metz. Robespierre was one of the competitors for the same honor. Lacretelle was intimately associated with La Harpe in the publication of the *Mercur de France*, in which his writings attracted the attention and friendship of D'Alembert, Condorcet, Turgot, and Malesherbes. At the beginning of the French revolution he was a member of the national assembly, voted for the new constitution making France a constitutional monarchy, and stubbornly adhered to it through the later developments of the revolution by which it was overturned, adopting for his motto: "The constitution entire, and nothing but the constitution." Voting against the accusation of Lafayette, he was accused of royalism and left Paris to save his head. Under the directory and the empire he was inconspicuously industrious in literary labor as a member of the institut. In 1817 he associated with Benj. Constant and others to establish the *Minerve Française*. This was suppressed by the government of Louis XVIII. Soon after, some essays, too liberal and incisive, procured him a month in prison. Being a man of estate, he published his own essays when their character made it unsafe for publishers to undertake them. His writings exhibit an earnest desire to ameliorate the cruelties of law and to promote education. His complete works were published in Paris in 1824 in 6 vols. quarto.

LA CROIX, **APOLLINE BIFFE**, wife of Jules; actress and author, whose maiden name was Pauline Derfeuille. She is author of *Fleur de Sene et Fleur des Champs*, 1854; *Falcone*, 1856; and *Madame Berthe*, 1857.

LA CROIX, JULES, brother of Paul, b. in Paris, 1809; a poet, dramatist, and translator of dramatic compositions, and a novelist. His novels are not esteemed of a high order, but some of his plays have been crowned by use in the Theatre Français. They are *Le Testament de César*, *Valéria*, and *Œdipus Rex*; the latter, a literal translation from Sophocles, receiving the grand prize of the French academy, 10,000 fr., in 1862. He has made a translation of Shakespeare's *King Lear*, which has been successfully played at the theatre de l'Odeon. In 1872 La Croix published a volume of poems, of great vigor of style, on the episodes in France incident to the German war, entitled *Invasion, Commune, Souvenirs sans Pardon*.

LA CROIX, PAUL, b. Paris, 1806; a French author who has written, under the name of "Le Bibliophile Jacob," a large number of romances and books of the manners and customs of the middle ages. In 1855 he was appointed keeper of the arsenal library, and he has edited the *Revue Universelle des Arts* since 1854. His work entitled *Histoire du 16e siècle en France* was published in 1834. Among his later historical books are: *Un Mobilier Historique des XVIIe et XVIII. siècles* (1865); *Arts au Moyen Age et à l'Epoque de la Renaissance* (1868); *Mœurs Usages et Costumes au Moyen Age et à l'Epoque de la Renaissance* (1871); and *La vie Militaire et la vie Religieuse au Moyen Age* (1872).

LA CROSSE, a co. in w. Wisconsin, bounded n.w. by Black river, w. by the Mississippi, and intersected by the La Crosse river; about 480 sq.m.; pop. '80, 27,072. The surface is undulating, and diversified with prairie and forest. It has a fertile soil, producing wheat, corn, oats, and hay. Lumber is extensively manufactured. The county is intersected by the Milwaukee and St. Paul, and the Chicago and North-western railroads. Valuation of real and personal property, \$12,893,938. Capital, La Crosse.

LA CROSSE, a city of Wisconsin, capital of La Crosse co.; beautifully situated on the Mississippi, just below the mouth of the La Crosse river, about 40 m. below Winona and 150 m. above Dubuque; pop. '70, 14,505. It is the n. terminus of the Chicago, Dubuque and Minnesota railroad, and the e. terminus of the Southern Minnesota railroad. The Chicago, Milwaukee and St. Paul, and the Chicago and North-western railroads pass through the city. It contains the usual county buildings, 12 churches, a high-school, an opera-house, a national bank, and 2 daily and 6 weekly newspapers, one of the latter printed in the Norwegian language. It is the seat of a Roman Catholic bishop, and has a convent and 2 orphanages. It has manufactories of agricultural implements, an engine and boiler factory, iron foundries, gas-works, lumber-mills, breweries, etc. Steamboat-building is also carried on to some extent, and large quantities of grain, lumber, etc., are shipped thence.

LACTHO, a province of Farther India, subject to the ruler of Cochin China; bounded s. by Lars, n. and e. by Tungquin, w. by China. It has been but imperfectly explored by Europeans, but is described by the Tungquinese as mountainous, rocky, and covered with jungle, destitute of navigable rivers, with the air pestilential and the water unwholesome. The numerous tribes of the interior are savages, governed by hereditary chiefs, and constantly at war with each other. The exports to Tungquin are buffaloes and cotton, and the imports from Tungquin are salt, salt-fish, oil, and silk stuffs for the chiefs. The medium of exchange is cowries. This province is said to contain many remarkable natural caves, which the natives used as temples. One is described as a mile across, through a mountain, and another as being entered under ground in a boat.

LACTIN AND LACTOSE. See SUGAR-OF-MILK, *ante*.

LACTOMETER. See GALACTOMETER, *ante*.

LACUSTRIANS AND LACUSTRINE VILLAGES. See LAKE DWELLINGS.

LA'CY, LUIS, 1772-1817; b. San Roque, Spain; one of the earliest leaders in the war of independence against Napoleon, earning for himself the rank of lieut. gen. He was at the head of the conspiracy for the overthrow of absolutism and the restoration of the constitution in 1817; but the plot having been discovered before the day fixed for its execution, he was tried by court-martial and condemned to death. The sentence was secretly pronounced and executed at the castle of Bellver, Majorica.

LADD, WILLIAM, 1778-1841; b. Exeter, N. H.; graduated at Harvard college in 1797; was for some time a captain in the merchant marine. On leaving this occupation he became a resident of Minot, Me., and devoted himself to the promotion of the cause of peace. He was one of the founders and the first president of the American peace society, and editor of its periodicals, the *Friend of Peace* and the *Harbinger of Peace*. He lectured extensively on the evils of war, and published various pamphlets on the same subject, including an *Essay on a Congress of Nations*. Died at Portsmouth, N. H.

LADINO, the name given throughout Central America, and especially in Nicaragua and Guatemala, to the half-breed descendants of whites and Indians. In this intermixture the white element has usually been represented by the father, there being few white women in the country. The ladinos are generally of a yellowish orange tinge, the European element usually predominating in the males, the Indian characteristics in the females, who, notwithstanding, are said to be the handsomest women in Central America. As a class the ladinos are averse to all manual labor, and desirous of being ranked with the whites. Their equivocal social position tends to make them restless and tur-

bulent, and to them largely may be attributed the civil wars which have marked the history of the Central American republics.

LADISLAS, or **LADISLAUS**, the name of seven kings of Hungary.—**LADISLAS I.**, **THE SAINT**, about 1041–95; succeeded his brother, Geysa I., in 1075. He was distinguished for his victories in war, for his efforts to promote commerce, for projecting the delivery of the Holy Land from the Moslems, and for building many churches and monasteries; canonized by pope Celestine III. in 1192.—**LADISLAS II.**, about 1134–62; crowned 1161.—**LADISLAS III.**, about 1185–1205; elected to succeed his father, Emerich, but died.—**LADISLAS IV.**, surnamed **THE CUMAN**, about 1250–90; succeeded his father, Stephen IV., in 1272. He at first made war upon the Cumans and defeated them; but the latter, reinforced by hordes of Tartars, afterwards overran and ravaged all Hungary. He then made terms with them, adopted some of their customs, and put away his wife to marry one of their princesses. He was finally assassinated by them.—**LADISLAS V.**, 1424–44; succeeded his father, Ladislav II., as king of Poland in 1434, and was elected king of Hungary in 1440. He defeated the invading Turks in two great battles in 1442–43; made a ten years' truce with the sultan Amurath II., thus acquiring the sovereignty of Wallachia, but obtained a papal dispensation releasing him from his oath, invaded Bulgaria, and was defeated and killed in battle at Varna.—**LADISLAS VI.**, **THE POSTHUMOUS**, son of Albert of Austria, 1440–57; b. several months after his father's death, when Ladislav V. was already upon the throne; was elected king in 1445, was crowned king of Bohemia Oct. 28, 1453, and d. at Prague. He was cruel in his character, and persecuted the followers of John Huss.—**LADISLAS VII.**, about 1456–1516; eldest son of Casimir IV. of Poland; was crowned king of Bohemia at Prague, Aug. 16, 1471; entered Hungary with an army in 1490, and was crowned king Sept. 21 of that year. He died at Buda.

LADISLAS, or **LANCELOT**, King of Naples, surnamed "the liberal" and "the victorious," about 1335–1411; succeeded his father, Charles III., under the regency of his mother, in 1386, but was driven from Naples in 1387 by his competitor, Louis II. of Anjou, who was invested with the crown by authority of pope Clement VII. He was reinstated in the same year by Otto of Brunswick, and in 1388 repulsed two invasions made by pope Urban VI. He was crowned at Gaeta in 1390 by a legate of the new pope, Boniface IX. The capital was at this time in possession of his rival, Louis II., and was not recovered until 1399, after a long and bloody contest. He was crowned king of Hungary in 1403, but soon relinquished his pretensions to that crown. In 1405 he made an unsuccessful attempt to seize Rome, in consequence of which he was excommunicated and deprived of his kingdom by the pope. In 1413 he surprised, captured, and plundered the city, and in the following year died at Naples. He conceived the project of the unity of Italy, which waited more than four centuries for its realization.

LADMIRALT, **LOUIS RENÉ PAUL DE**, b. France, 1808; rose rapidly by service in Africa; was general of division at Solferino, where he was wounded; senator in 1866; and commander of the 4th army corps ordered to defend the lines between Metz and Thionville in the war with Germany in 1870. After the defeat of MacMahon's division he retired his corps into Bazaine's command, and was surrendered with Metz, Oct. 27, 1870. After the peace in Mar., 1871, on the breaking out of the civil war between the national assembly at Versailles and the commune of Paris, Ladmiraalt was made commander of the troops charged to take Paris. On May 22 he forced an entrance by the *porte St. Ouen*, the following day gained possession of the heights of Montmartre, and thence, with obstinate fighting on both sides, took possession of the city part by part. July 1, 1871, he was made military governor of Paris, and in the organization of the military service to insure the peace of Paris he used his discretionary power to suppress journals, interdict plays at theaters, etc., in such a way as to suggest to the republican papers that they were unduly honored by his disapproval.

LADY HUNTINGDON'S CONNECTION, OF CALVINISTIC METHODISTS. See **HUNTINGDON**, **SELINA**, COUNTESS OF.

LAOKEN, a village of Belgium, a suburb of Brussels, containing a royal palace built in 1782 by the Austrian princess, Maria Christina. After passing through one or two other hands, this palace was bought by Napoleon in 1806 for 500,000 francs for Josephine; and in 1811 he resided there for a time with Maria Louisa. In 1812 he exchanged it for the *Élysée Bourbon*. Afterwards it became the property of Belgium, and is at times the residence of the royal family. Malibran is buried in the cemetery of Laeken, and a monument by the sculptor Geefs marks the spot. The tombs of queen Louise and king Leopold I. are in the parish church, and a Gothic building has been erected there as a vault for the royal family.

LÆLAPS, or **DRYPTOSAURUS**, a genus of deinosaurian reptiles found in the cretaceous deposits of North America, and closely allied to hadrosaurus (q.v.). megalosaurus (q.v.), and iguanodon (q.v.), in fact being the American representative of megalosaurus, which is a characteristic fossil of the Wealden and Purbeck limestones. Like the above-mentioned relatives, it had very large hind-legs, upon which it is supposed to have walked. It was probably about 25 ft. in length, including the tail, and is supposed to

have been, when standing on its hind-legs, about 12 ft. in height. It was, like others of the family, a terrible, carnivorous reptile.

LÆLIUS, SAPIENS CAIUS, B.C. 186-115; the son of C. Lælius Nepos. In early life he studied philosophy with Diogenes and Panætius; and afterwards law, taking a high rank among the orators of his time. He was the intimate friend and companion of Scipio Africanus the younger, and accompanied him in his expedition into Africa, displaying great valor at the siege of Carthage, 146 B.C. When prætor in Lusitania he made a successful campaign against the powerful chieftain Viriathus. He was consul 140 B.C. At the beginning of his career he favored plans for raising the masses to become landed proprietors, but was repelled by the extravagance of the elder Gracchus. After his political career closed he spent his time in the country, partly in study and partly in rural occupations. The equanimity of his temper is noticed by Horace in the words *mitis sapientia Lælii*. Cicero placed his name at the head of his essay *De Amicitia*.

LAESA MAJESTAS, leze-majesty, or high treason. The term, which was transferred from the Roman to the common law, denoted an offense against the king in his person or office. See **TREASON**, **LEZE-MAJESTY**.

LÆSTRY GONES, a fabulous race of giants often mentioned in the Greek mythology. Their name first occurs in the *Odyssey*, where they are described as a pastoral people, governed by a king called Lamus. Tradition places them in Sicily. The common story is that they lived near Leontini in that island, and that hence the plains adjacent to that city were called Campi Læstry-Gonii. At Rome the belief is that they lived on the Latium coast, and that their capital was Formiæ.

LAET, JAN DE, b. Antwerp, 1633; one of the directors of the East India company, and an intimate friend of Salmasius. He was the author of nearly 20 learned geographical works in Latin, several of which were incorporated in the miniature series of *Republiques* issued by the Elzevirs of Leyden. He held a sharp controversy with Grotius as to the origin of the Indian tribes of America. Among his works were *Novus Orbis* and *Historia Naturalis Brazilie*.

LAFARGE, MARIE CAPPELLE, 1816-52; b. France, of good family; distinguished as the victim of circumstantial evidence, which procured her conviction at the age of 24 for the murder of her husband by poison. The trial was remarkable for the virulence with which the prosecution was conducted, the judge even seeming to be one of the prosecutors; for the contradictions of scientific experts as to the finding of arsenic in the body of the deceased; and yet more by the failure to arrest the only party, a servant of the deceased and a proved knave, who could have profited by the death. Lafarge was sentenced to labor for life in prison, but she was allowed to write her memoirs, published in 1841, in which she reviews with vigorous irony and originality the proceedings of the court. Her sentence was subsequently softened, and she wrote *Heures de Prison*, a little volume of tender and melancholy resignation; also, a little drama entitled *Une Femme Perdue*. She was pardoned out after 12 years' captivity, leaving prison broken in health, in almost a dying condition, and expired at the baths of Ussat a few months after. The case is regarded as one of the worst examples of severe punishment on insufficient evidence.

LAFAYETTE, a co. in s.w. Arkansas, bounded on the w. by the Red river, which divides it from Miller county. It is drained by the Red river and the bayou Bodeau. Its s. boundary is the frontier line of Louisiana. It is crossed by the Cairo and Fulton railroad; 1060 sq.m.; pop. '80, 5,729-3,613 colored. The surface is mostly level prairies, on which are found extensive forests of building timber, as well as ornamental trees. The soil is low and wet, but very prolific. The staple products are cotton, sweet potatoes, corn, pork, and live stock. Value of real and personal estate in '70, \$3,333,290. Seat of justice, Lewisville.

LAFAYETTE, a co. in n. Florida, bounded on the e. and n. by the Suwanee, a navigable river, which, rising in the n. and emptying into the gulf of Mexico, separates it from Suwanee, Alachua, and Levy counties. The gulf of Mexico and a small stream complete its boundaries, with the exception of a small portion in the n.w., which is bounded by the co. of Taylor; 900 sq.m.; pop. '80, 2,440-173 colored. The surface spreads into broad and level plains, covered with a dense growth of timber. The soil is easily cultivated, and the chief products are Indian corn, sweet potatoes, sugar, and molasses. Cotton is raised to some extent, also cattle, horses, and swine. Fort Macomb is in the eastern section on the banks of the Suwanee. Valuation of real and personal estate in '70, \$221,262. Seat of justice, New Troy.

LAFAYETTE, a parish in s. Louisiana, bordered on the n.e. by the Vermillion river, a bayou navigable by steamboats, which passes through it south-westwardly; 240 sq.m.; pop. '80, 13,236-5,540 colored. The surface is low and level, with a rich soil adapted to the cultivation of cotton, sugar-cane, sweet potatoes, rice, corn, and the raising of live stock. Wool is a staple product. There were produced in '70, 128 hogs-heads of sugar, and 6,715 gallons of molasses, employing 6 manufactories. It has good water privileges and 2 saw-mills. It will be intersected by the railway line from New Orleans, La., to Houston, Texas, crossing it centrally; at present the town of Vermillionville is the terminus of Morgan's Louisiana and Texas railroad, distant from

New Orleans 143 miles. Valuation of real and personal estate in '70, \$1,177,440. Seat of justice, Vermillionville.

LAFAYETTE, a co. in n. Mississippi, watered by the Tallahatchie river, forming its n.e. boundary, and the Yockeney or Yocknapatafka branches of the Yazoo river; and intersected by the Chicago, St. Louis and New Orleans railroad; 790 sq.m.; pop. '70, 18,802—7,983 colored. The surface is undulating, with occasional groves of magnolia, tulip tree, black walnut, and the timber generally found in the southern states. The soil produces wheat, maize, and sweet potatoes. Cotton is cultivated and cattle are raised to some extent. Pork is a staple product. The industries are represented by several tanneries and currying establishments. Its water power is utilized by 7 saw-mills and a wool carding mill. Valuation of real and personal estate in '70, \$3,339,716. Seat of justice, Oxford.

LAFAYETTE, a co. in w. Missouri, bordered on the n. by the Missouri river, which separates it from Ray and Carroll counties. It is watered by confluent of the Missouri, and crossed centrally by the Lexington branch of the Missouri Pacific railroad; 585 sq.m.; pop. '80, 25,731—4,418 colored. It has a surface of rolling prairie, with large tracts of arable land, covered with a thick growth of timber; that which is under cultivation bears corn, wheat, oats, and hay. Cattle, horses, sheep, and swine are raised, and tobacco and wool are staple products. Its manufactories are few in number, but it contains inexhaustible beds of bituminous coal, and extensive ledges of limestone and sandstone largely used for building purposes. It has several flour-mills and saw-mills. Valuation of real and personal estate in '70, \$20,000,000. Seat of justice, Lexington.

LAFAYETTE, a co. in s.w. Wisconsin, has for its southern boundary the state line of Illinois. It is watered by the Fevre and Pecatonica rivers, which form a single stream in the s.e. corner. The northern division of the Illinois Central railroad traverses the s.e. section, and it is intersected by the Mineral Point railroad; 630 sq.m.; pop. '80, 21,278—7 colored. The surface is rolling and mostly without forests. The n.w. section is hilly and rises into what are called the Platte Mounds. It has a large extent of arable land, with mineral bearing tracts, where lead, copper, zinc, and silurian limestone are found. The soil is adapted to wheat, corn, oats, barley, and potatoes; other products are flax-seed, wool, butter, cheese, and hay. The raising of live stock is a lucrative pursuit. It has excellent water power and 6 flour-mills. Wagons, carriages, saddlery and harness, and pig lead are manufactured. Valuation of real and personal estate in '70, \$14,383,814. Seat of justice, Darlington.

LAFAYETTE (*ante*), a city in Indiana, organized in 1857, in the co. of Tippecanoe, on a bluff by the banks of the Wabash river; pop. '80, 14,860 of American birth. It is on the line of the Wabash and Erie canal, and is the terminus of the Indianapolis, Cincinnati and Lafayette railroad, and a junction of the Lake Erie and Western railway and the Wabash, St. Louis and Pacific railway with the Louisville, New Albany and Chicago railway. It is 63 m. n.w. of Indianapolis, 130 m. s.s.e. of Chicago, and 37 m. s.w. of Logan port. At the head of navigation, with these railroad facilities, it is the center of a constantly enlarging system of freight transportation, which commands the patronage of a large commercial interest, and the trade of a vast extent of fruitful country. It has 5 national banks with an aggregate capital of \$2,505,000, also 25 churches, including a Jewish synagogue, 3 daily and 4 weekly newspapers, and a German semi-weekly. It is 7 m. s. of the field where the famous battle of Tippecanoe was fought, Nov. 7, 1811, an engagement between Tecumseh's brother Elskwatara, chief of the Shawnees, with 400 Indians, which he had induced to join him by promises of aid from England, and the American general, Harrison, with 800 men, who attempted to drive them within the limits prescribed by treaty. Elskwatara, making the attack on the American camp, was defeated, the battle resulting in a new accession of territory to the United States. Among its industries are the manufacture of plows, reapers and mowers, pumps, barrels, clothing, boots and shoes, carriages, and the business of pork-packing. The manufactories include a number of breweries, ornamental iron works, marble works, and foundries. It has a complete municipal government, with an efficient police force and fire department, and medicinal springs in the center of the city, brought to the surface by means of an artesian well 230 ft. deep. Within its limits are the county fair grounds and the county jail, costing \$95,000. It has an opera-house costing \$62,000, and a court-house, a monastery, a convent, orphan asylum, and a hospital, the latter a Roman Catholic institution. It is the seat of the state agricultural college, called Purdue university on account of a gift of \$150,000 and 100 acres of land from John Purdue; congress by the land grant furnishing \$212,238, and the state and county \$110,000 and its support. It has fine public school buildings, superior educational advantages, and several Roman Catholic schools, including St. Mary's academy; also, a free reading-room and library supplied by the Young Men's Christian Association.

LAFAYETTE, MARIE JEAN PAUL ROCH YVES GILBERT MOTIER, Marquis de (*ante*). A simple epitome of the acts of Lafayette from early youth to ripe old age, in the thick of the grandest revolutions of the world's history, and he in all a leading actor, would suffice to give the student of history a profound recognition of the greatness and nobility of his character. But the part taken by Lafayette in the struggle of the thir-

teen American colonies to become a free republic was of a nature which demands exceptional recognition in America. The chivalric and persistent devotion of the boy-nobleman to the cause of liberty when it seemed most gloomy and hopeless will always cause a throb of grateful interest in his life in the hearts of Americans, and make them curious to follow to its close a life so nobly begun. Orphaned of father at birth and of mother at the age of 12, his life developed from within, and was little molded by any will but his own. His aptness and progress crowned his school-days with honor. The writings and philosophy of that time were particularly imbued by a chivalric tendency to promote liberty and progress, and those who were soon to lose most by the natural logic of such opinions were foremost in their advocacy. Lafayette had the stimulus needed for the development of a noble life. Filled with a French boy's thirst for glory, young Lafayette was unique in his appreciation that true glory is gained only in a noble cause. In his memoirs we see on how high a plane his nature was leveled when he states that while with his regiment at Noailles, at the age of 18, he was unpopular on account of his silence, and silent because he heard nothing worth hearing. His high rank would have made his progress at court sure and rapid had he been a courtier. But he disdained the court life and was ill at ease in it.

The struggle of the American colonies had attracted little attention in Europe until the declaration of independence. That terse and thrilling appeal to the sympathy and judgment of the world commanded attention. In the summer of 1776, while stationed at Metz on duty in the army, he attended a dinner given by the French officers to the duke of Gloucester, brother of the king of England. Dispatches had just been received from London containing the declaration of independence, and information of the vigorous measures being taken to crush the rebellion. While at table in conversation with the English guests, he formed the resolution to offer his services to the colonies. He went to Paris and consulted with the count de Broglie, an old general of the army and a friend of his father, concerning his projects. De Broglie "thought it so chimerical and fraught with so many hazards, without a prospect of the least advantage, that he could not for a moment regard it with favor," and advised the youth to abandon it immediately. Lafayette replied that he must go, and obtained a promise from the old soldier not to betray his intention. The old friend's parting words were: "I have seen your uncle die in the wars of Italy, I witnessed your father's death at the battle of Minden, and I will not be accessory to the death of the only remaining member of the family." He argued in vain to divert Lafayette from his purpose, and finally introduced him to baron de Kalb, who also was seeking to get to the aid of the colonies. Soon afterwards came the news of the evacuation of New York by Washington and of general disasters to the colonial forces. Lafayette was again urged to abandon a scheme which seemed not only without hope of success, but without glory or reward in case of success. But the misfortunes of the colonies but deepened his sympathy and strengthened his determination. He had before thought only to offer his sword and his life, with a few devoted companions. He now resolved to purchase a ship, store it with munitions needed by Washington, and to lose no time in going to his assistance. Franklin and Arthur Lee were then the American commissioners in Paris. With grateful admiration they seconded the young man's plans. With a reticence and skill remarkable in a youthful enthusiast, Lafayette distracted attention from his purpose by a visit to England while his vessel was being fitted for the voyage, and kept his plans a secret from the French ambassador in London as well as from his own government. He returned when his ship was ready, saw few friends, did not go to Paris, and was ready to start, when his scheme was exposed to his government, which caused his arrest and detention on the ground that the assistance he was endeavoring to render the colonies was a breach of neutrality on the part of France towards England. His father-in-law procured a *lettre de cachet* commanding Lafayette to repair to Marseilles and await orders. His family wounded him with reproof for his rash determination. But his noble young wife, whom he had married when he was 16 years of age, was one with him in spirit and purpose, and seconded his determination. He kept well advised of the movements anticipated for his arrest, and, feigning to obey the order to go to Marseilles, he started for that city, but arriving at Bordeaux assumed the dress of a courier, and with much difficulty succeeded in reaching his ship and set sail for America. Nearly a year had been consumed in these preparations and enforced delays. His vessel reached land at Georgetown, S. C., about the middle of June, 1777. His party proceeded quickly to Charleston, and thence, visiting the state capitols and officials on the way, to meet congress at Philadelphia. When his letters of tender of service in the American army were presented to the chairman of the committee on foreign affairs, that dignitary informed him that "so many foreigners had offered themselves for employment that congress was embarrassed with their applications," etc. Lafayette's action following was characteristic. He wrote a note to the president of congress in which he desired to be permitted to serve in the American army on two conditions: first, that he should receive no pay; secondly, that he should act as a volunteer. His persistence and disinterestedness won, and he was appointed a maj. gen. in the American army before he had reached the age of 20. His first meeting with Washington resulted in a warm and enduring friendship, and he was at once invited to become a member of the commander's military family. His first service in battle was at Brandywine, where his bravery,

skill, and coolness were conspicuous and he received his first wound. Late in 1777 a cabal was formed in congress, in which one Conway was the intriguer, against Washington, with purpose to make gen. Gates commander-in-chief. Congress instituted a new board of war, placing gen. Gates at the head of it. This board planned an attack on Canada without any consultation whatever with Washington. One of its first acts was to forward a letter to Washington through Lafayette, inclosing the appointment of the latter to the command of the expedition. It was intended to separate Lafayette from Washington. But he was not flattered, nor uncertain how to receive it. He handed the letter to Washington and told him that he should decline. Washington, however, urged him to accept the appointment for patriotic reasons, and he went to Albany to assume command. But the plans of the board of war were not carried out. He found no army to command, and during the winter rejoined Washington at Valley Forge. Sparks, in his *Life of Washington*, observes: "It must here be recorded to the honor of Lafayette—if, indeed, his whole career in America was not a noble monument to his honor, his generosity, and unwavering fidelity to every trust imposed on him—that from the very first he resisted every attempt that was made by the flatteries of Conway and the artifices of others to bring him into the league."

The attention called to the revolutionary struggle by Lafayette's chivalric devotion to it created a romantic sympathy for the Americans among the noble classes of France, which Lafayette aided by correspondence to foster. In Feb., 1778, the American commissioners in Paris, Franklin, Dean, and Lee, not only obtained the recognition of the independence of the United States, but secured a treaty of alliance with France. May 20, 1778, Washington placed 2,000 men under the command of Lafayette to watch and harass the main British army then about to move from Philadelphia to New York. He was attacked in force, but handled his troops in a masterly manner and withdrew with an insignificant loss. From this time forward Washington placed the boy-commander in positions which particularly required alertness, boldness, and prudence combined. Late the same year Lafayette returned to France to urge speedy assistance for the Americans, and returned late in April, 1779, with the news that a French fleet and land force was on its way to the United States. He visited Washington in camp, and then visited the congress. The fleet brought not only a considerable French land force, but also large supplies of clothing and ammunition for the Americans, which Lafayette had induced his government to send. While he was in Paris the French prime minister had remarked: "It is fortunate for the king that Lafayette does not take it into his head to strip Versailles of its furniture to send to his dear Americans, as his majesty would be unable to refuse it." Another valuable service rendered during his short stay in Paris was the instructions which he procured from the commander of the French forces in America, which stated in unequivocal language that the French forces by land and sea were to be under the control of Washington and to act as auxiliaries of the states' army, and that French officers were to receive orders from American officers of the same rank. This insured a harmony and efficiency of joint service that could not otherwise have been attained. In Feb., 1781, Washington placed Lafayette in command of a detachment to act in Maryland and Virginia. The French fleet was to move down the coast to act in conjunction with him, but that part of the plan failed. Later in the season, however, his activity and skillful maneuvering served to hold Cornwallis in check in southern Virginia. Both Washington and the count de Vergennes, French ambassador, wrote letters of warm commendation of the ability with which Lafayette handled his army in that campaign. In the beginning of this campaign the troops were so scantily clad and the government was so unable to supply them that Lafayette, on his own personal responsibility, borrowed \$10,000 of the merchants of Baltimore to buy cloth for them, and inspired the ladies of that city to make the garments required. In Oct., 1781, Lafayette took conspicuous part in the siege and storming of Yorktown, resulting in the surrender of Cornwallis and the British army under him. Soon after this final victory, Lafayette obtained permission of congress to return to France. From that time forward his life was identified with the history of France for upwards of 40 years, and no stain is known to rest on the purity and disinterestedness of his public service. No private misfortunes or losses incident to the forfeiture of his great estates by the revolution of 1789-93 ever drew from him a revocation of his republican principles, or a sign of regret for the sacrifices which he had made for them. His visit to the United States in 1824, on invitation by Congress, was an event memorable in American annals. He was sought as a public guest in all parts of the country; his course was amid a universal tumult of honor and praise; the nation thronged around him to testify with one voice its gratitude and love.

LAFAYETTE COLLEGE, at Easton, Penn., founded in 1832 under a charter granted by the state legislature in 1826. George Junkin, D.D., LL.D. (q.v.), was its founder and first president, conducting it for 9 years. It is under the patronage of the Presbyterian denomination; its productive investments amount to \$258,000; non-productive, \$559,000; annual income, \$16,000. It has noble buildings and grounds, and has a library of 16,000 vols., and valuable apparatus, scientific collections, etc. It had, in 1880, 20 professors; other instructors, 2; students, 265; alumni, 900. It embraces schools of art, science, and law. The classical course of study is maintained in its integrity. The

general scientific course, and the courses in civil engineering, mining, and metallurgy, and chemistry are endowed by Mr. Ario Pardee, of Hazelton, Penn., and constitute "the Pardee scientific department" of the college. A grand building for the uses of this department was erected and furnished by Mr. Pardee at his own expense, and is named "Pardee hall." This building was burned, and has recently been replaced by one which reproduces the beauty and fitness of the original. Mr. Pardee's gifts to the college amount in all to nearly \$500,000. The post-graduate courses are thoroughly organized. President, William Cattell, D.D.

LAFITAU, JOSEPH FRANÇOIS, 1670-1746; b. Bordeaux, France. He was sent as a Jesuit missionary to Canada in 1712, and assigned to the Iroquois mission at Sault St. Louis, on the St. Lawrence. The room occupied by him there is still shown. In 1716 he discovered and identified the ginseng plant, so highly esteemed in China for its medicinal properties. He returned to France in 1717, and published an account of his discovery, which led to a trade in ginseng between America and China. During his stay in Canada he devoted himself diligently to a study of the Indian character, and the results of his observations were published at Rome in 2 vols. 4to, 1724.

LAFITTE, JEAN, b. about 1780; a Frenchman, who held a commission as a privateer during the war between France and Spain, and was afterwards commissioned by Carthage for similar service. This service degenerated, however, into piracy; and Baratania bay in Louisiana became the rendezvous of a horde of adventurers and unscrupulous sailors, among whom the brothers Lafitte were pre-eminent, becoming the terror of traders in the gulf of Mexico. The outbreak of the war between the United States and Great Britain closed the unlawful career of Lafitte and his comrades. The British made overtures to him, hoping that he might be induced to attach himself to their interests. In the mean time an expedition was sent out by the Americans, under commodore Patterson, designed to break up the stronghold at Baratania bay, and capture the pirates; but this design was frustrated by the flight of the latter. The anticipated attack on New Orleans induced the governor of Louisiana and gen. Jackson to issue a proclamation inviting Lafitte and his men to unite in the defense of that city. The invitation was accepted, and the outlaws conducted themselves during the battle with such courage and fidelity that president Madison issued a proclamation early in 1815, recounting their services, and according them free pardon for their past misdeeds. There exists no record of the subsequent career of Jean Lafitte. His career was put to use by the rev. J. H. Ingraham, who founded upon it a romance.

LA FLËCHE, a t. of France, on the river Loire; pop. about 10,000. It has a palace built by Henry IV., now used for a Jesuit school; a picture gallery, and a library of 20,000 vols.

LA FOURCHE, a bayou in s. e. Louisiana, one of the outlets of the Mississippi, beginning at Donaldsonville on the right bank, and stretching s. e. through the parish of La Fourche Interior to the Mexican gulf, a distance of 150 miles. It is navigable for 100 m. from its mouth, and the channel of an extensive commerce with the interior.

LA FOURCHE, a parish of s. e. Louisiana, bordering on Baratania bay, and intersected by bayou La Fourche; 1100 sq. m.; pop. '80, 19,113. The surface is level, and the soil, except where it is too low and wet for cultivation, is very productive. The Louisiana and Texas railroad passes through the parish. The principal productions are corn, sweet potatoes, rice, sugar, and molasses. Capital, Thibodeux.

LA FUEN'TE, MODESTO, b. 1806. He was for a time professor at Astorga, and afterwards a satirical journalist at Leon and Madrid. His periodical writings were very popular, but his chief work is a *History of Spain* in 26 vols.

LAGER BEER, or **LAGER-BIER**. In the article **BEER** the process of manufacture of beer or ale and the principles of beer fermentation are given. The kind of fermentation there described, however, is performed at a higher temperature than that which is employed for making a kind of beer introduced by the Germans, called by them lager-bier. The yeast in ordinary fermentation is developed rapidly and rises to the top, and is called top-yeast. The buoyancy is caused by the rapid evolution of carbonic acid gas, which, adhering to the yeast, causes it to ascend in the liquid. The fermentation of lager beer takes place very slowly. The wort is prepared in much the same manner as for ale, and is pumped from the hop-back into shallow coolers placed in the upper stories of the brewery, and is also passed through a refrigerator until it is reduced to a temperature of about 45° F. Thence it is carried in pipes to large fermenting tuns, placed in cool cellars, or in chambers cooled by ice, having a temperature of 40° to 45° F. Here yeast is added, which, in the course of about three days, incites fermentation, which is manifested by the appearance of minute bubbles of carbonic acid gas, which, as in the fermentation of ale, carry a little of the yeast with them. This does not, however, remain there, but, discharging the gas to which it had adhered, settles to the bottom in the form of a viscous mass, which, with that which remains there, constitutes what is called bottom-yeast. The slow fermentation employed in the process of making genuine lager beer causes a clarification and the commencement of a ripening which affords a beverage free from the objectionable qualities of the common beer which goes under the same name, but which is known to brewers under the name of *Schenckbier*, or *present-use*

beer. This is fermented in a much shorter time, but the fermentable matter is not all eliminated as in the genuine article, but for the purpose of neutralizing what acetic acid might appear from acetous fermentation, or for producing by union with it an additional quantity of carbonic acid gas to give it "life," the brewer adds in the operation of casking a quantity of bicarbonate of soda, immediately upon which the bung is driven in, and the beer is ready for market. Genuine lager, however, lies a long time to ripen, and attains certain qualities not possessed by any other kind of beer, and highly prized by lovers of this beverage. The number of breweries of all kinds making both ale and lager beer in the United States in 1880 was 2,271. Of these, 2 produced between 200,000 and 250,000 barrels each; 2 between 150,000 and 200,000; 7 between 100,000 and 150,000; 10 between 75,000 and 100,000; 22 between 50,000 and 75,000; 302 between 10,000 and 50,000; 198 between 5,000 and 10,000; 937 between 500 and 5,000; and 784 less than 500 barrels. There is no report of the number of breweries and amount of product assigned severally to the two kinds, ale and lager beer.

LAGO MAGGIORE. See MAGGIORE, LAGO.

LAGO MAGGIORE, or LAKE OF LOCARNO, the largest of three lakes in northern Italy, the other two being Como and Lugano. It lies between the Italian states of Piedmont and Lombardy and the Swiss canton of Ticino, its main outlet being the river of the latter name. It is 40 m. in length and from 2 to 5 m. in breadth. The necessities of the surrounding country give rise to a considerable trade, which is conducted by numbers of vessels that navigate the lake, while steamers connect the principal towns on its banks. Large forests of fine timber and extensive marble quarries have given rise to productive industries. The lake offers fine subjects for artists, and has been often painted from various points.

LAGOS, a city of Mexico, the capital of a canton of the same name in the state of Jalisco, near the frontier of the state of Guanajuato; pop. about 25,000. It is noted for its fine churches and manufactories, and for the deposits of iron ore in the immediate vicinity. It is in a central position in the country, and on this account is to be the place of junction of three railroads, which will connect it respectively with the city of Mexico, with the Rio Grande, and with the Pacific.

LAGOSTA, the ancient Lastobon or Ladestris, an island in the Adriatic, off the coast of Dalmatia, belonging to Austria; 63 m. n.w. from Ragusa; 6 m. long and 4 wide; pop. 1200. Its coast is guarded by steep cliffs and indented by several creeks; the interior is mountainous. It is surrounded by several small islands. On the n. side is the village of Lagosta with a small port.

LAGOSTOMUS, a genus of the family chinchillidæ, order rodentia, of South America. They have a more rat-shaped body than the genus *lagotis*, but still many of the characteristics of the rabbit. Their fore-feet have four toes and no pollex or thumb, as in that genus, but upon the hind-feet there are only three toes. Ears and tail considerably shorter than in *lagotis*. The principal species, *L. trichodactylus* (*dipus maximus* of De Blainville, *marmot Diana* of Griffiths, *Callomys viscacia* of Geoffroy and d'Orbigny), is the viscacha of the South American pampas. Much has been written about these interesting animals by travelers. The abbé Jolis, who lived 12 years in South America and made three journeys into the remote districts of the interior, gives an interesting notice of their habits; and Darwin, in his *Journal*, gives them particular attention. They form vast burrows or underground villages, the old, according to the abbé, living separately from the young. Darwin says that their most favorite sites for burrowing are those parts of the plain which, during one-half of the year, are covered with great thistles to the exclusion of other plants. In the evening they come out in numbers and sit upon their haunches, appearing at such times to be very tame. Their flesh when cooked is very white and good, but is seldom eaten. They have a very singular habit of collecting various kinds of objects, such as stones, the bones of animals, thistle stalks, etc., near the mouths of their burrows, sometimes forming piles as large as a common bushel basket. Dental formula is the same as in *lagotis* (q.v.). See CHINCHILLA.

LAGO'TIS, or LAGIDIUM, a genus of the family chinchillidæ, order rodentia. There are two species, *L. Cuvieri* and *L. pallipes*. They inhabit the western declivities of the Andes in Chili, Peru, and Ecuador; are known as the mountain viscachas, in contradistinction to the viscachas of the plains (*lagostimus*). Some regard the species *L. Cuvieri* as alone being the true viscachas of authors, from Pedro de Cieza downwards; but both species are generally called mountain viscachas. The *L. Cuvieri* is of the size and general form of the rabbit; hind limbs twice as long as the fore limbs; tail, length of the body exclusive of head; whiskers numerous, closely set, jet black; ears, 3 in. long by 1 in. wide, with margins nearly naked at base. Fore and hind feet alike, with four toes only, and no vestige of a pollex; claws concealed by long bristly hairs. The fur is long, soft, and very beautiful, but readily falls out unless carefully handled. The general color is a mottled grayish ash, rather yellowish on the sides of the neck and body. In *L. pallipes* the fur is rather thinner and shorter than in the other species, and on that account feels rather softer, and that of both is inferior to the fur of the genus *chinchilla* (q.v.) The dental formula in both species is as follows: incisors $\frac{1-1}{1-1}$, molars $\frac{4-4}{4-4}$

LA GRANGE, a co. in n.e. Indiana, bordering on Michigan, and drained by Pigeon river; 384 sq.m.; pop. '70, 14,148. It has a level surface and a fertile soil, and a considerable portion of the area is in forest. The Grand Rapids and Indiana railroad passes through. The chief productions are wheat, corn, oats, potatoes, wool, butter, hay, and live stock. There are in the county manufactories of carriages, woolen goods, flour, lumber, etc. Capital, La Grange.

LA GRANJA, or **SAN ILDEFON'SO**, a small t. in the province of Segovia, Spain, 34 m. n.w. of Madrid, celebrated for its romantic situation on the northern declivity of the Sierra Guadarrama, and for a beautiful palace built by Philip V., 1724-27, at an elevation of nearly 4,000 ft., with pleasure-grounds in imitation of Versailles. One of the fountains rises 150 feet. It was formerly the summer residence of the royal family, and it was here that queen Christina was surprised in the night of Aug. 16, 1836, by leaders of the liberal party, who had bribed her guards, and compelled to enter into an agreement to restore the constitution of 1812. Philip V. and his queen are buried in the church of this town. The royal family has several villas and parks in the neighborhood.

LA HARPE, **FRÉDÉRIC CÉSAR DE**, 1754-1838; b. Switzerland; having imbibed strong republican principles in his youth, was dissatisfied with the political condition of his country, and even contemplated emigrating to America to aid the cause of the revolting colonies. He was dissuaded from this intention through an appointment as tutor in the family of a Russian nobleman, and his success in this position having reached the knowledge of the empress Catharine II., she appointed him to the charge of Alexander and Constantine, the two sons of the czarowitz. In addition to this honor, La Harpe received the appointment of col. in the Russian army. His tendency to republican theories having induced him to support the French revolution by his writings, and as he sought to effect a reorganization of the Swiss confederacy into the form of a republic, Catharine dismissed him from his position, but provided that he should receive a life-pension on account of his previous services. He now threw himself with ardor into the prosecution of his plans for the regeneration of Switzerland—plans which, through the intervention of France, he was enabled to carry to an apparently successful conclusion. The presence of French armies at Bern enforced the establishment of the republic of 1798, and La Harpe became a powerful and active member of the new government. But this condition of affairs was short-lived. Napoleon restored temporarily the old cantonal system, and La Harpe was forced to retire to France, where he continued to reside until after the congress of Vienna and the establishment of the independence of Switzerland, when he made his home at Lausanne. The latter part of his life was devoted to the promulgation of his liberal political theories.

LA HARPE, **JEAN FRANÇOIS DE**, 1739-1803; b. Paris; began his literary life at a very early age by inditing satirical verses, which brought him under severe discipline, at the hands of the government. He next devoted himself to dramatic writing, but though meeting with some success, it was not to his mind commensurate with the ability of his work, and he grew disheartened and dissatisfied. In 1766 he visited Voltaire at Ferney, and remained his guest during the next two years. Returning to Paris, he devoted himself to criticism, becoming a regular contributor to the *Mercur de France*. He obtained a general reputation for the severity of his judgments, which did not, however, prevent his success in his new department, and he won a number of prizes from the French academy. But, curiously enough, his chief reward was gained through the production of *Mélanie, ou la Religieuse*, a play which was the cause of his gaining a seat in the academy. It is a somewhat remarkable coincidence that while the Swiss statesman La Harpe was engaged in teaching the two sons of Paul, grand duke of Russia, the French critic La Harpe was in correspondence with the grand duke himself, this correspondence being afterwards published. La Harpe, like his namesake, was a strong republican, and an adherent of Robespierre, yet he was so little determined in his opinions that he was imprisoned during the existence of the directory, a fact which resulted in overthrowing in him all his former Voltairean ideas, and inclining him to the profession of positive religious views. La Harpe's chief work was the *Lycée, ou Cours de Littérature Ancienne et Moderne*, 12 vols., Paris, 1799-1805.

LA HONTAN, **ARMAND LOUIS DE DELONDARCE**, Baron de, 1666-1715; b. France. He went to Canada in 1683 as a common soldier; made two excursions far into the then scarcely known regions of the lakes, and subsequently published several volumes describing the country and the Indian tribes between Montreal and Mackinac. Doubt was at one time thrown on the verity of his travels by the inaccuracy of his observations; but there is ample proof that at least he was at the points which he describes. He was in various military expeditions sent against the Indians; was at Michilimackinac and Sault St. Marie in 1688, at Green Bay in 1689, and claims to have been on the upper Mississippi about this time. He returned to France in 1690; came back the next year; was bearer of dispatches from count Frontenac to the French government soon after. On his way to France the vessel in which he embarked put into Placentia bay, Newfoundland, where La Hontan aided in the defense of the port against an attack by the English with so much spirit that he received the appointment of lieutenant in Newfoundland and Acadia. Quarreling with the governor he was dismissed from the French service, escaped to Portugal, and thence made his way through Spain to Denmark and England.

In 1703 he published at the Hague in Holland his adventures in America under the title *Nouveau Voyage dans l'Amerique Septentrionale, comprenant Plusieurs Relations des Différents Peuples qui l'habite*, etc., in 2 vols. In 1703 he published at Amsterdam one volume in continuation, entitled *Suite du Voyage de l'Amerique*, etc. His accounts of the lake region of America were misleading to the geographers of his time, and contain so much of fiction as to be now valueless.

LAH'SA, or EL AH'SA, the name of an independent dominion, situated on the eastern shore of Arabia, in lat. 25° 25' n., long. 49° 45' e., comprising an extensive, well-watered, and fertile valley, and having a large capital, well built and prosperous. Dates and camels are the greatest sources of wealth, but the soil produces wheat, millet, and all kinds of fruits and vegetables. The population of the district numbers 50,000, that of the town 10,000. The government pays a small annual tribute to the sultan.

LAIDLIE, ARCHIBALD, D.D., 1727-78; b. at Kelso, Scotland; educated at the university of Edinburgh; entered the Presbyterian ministry in 1759, and for the next four years was pastor of the Scotch church at Flushing, Holland. Here he acquired a knowledge of the Dutch language and of the theology of the Reformed (Dutch) church. Having connected himself with this denomination, he was called to the pastorate of the Collegiate church in New York, and on April 15, 1764, preached in the Middle Dutch church, corner of Cedar and Nassau streets, the first English sermon ever addressed by a regular pastor to an American Dutch congregation. His ministry in New York was successful and popular. Soon after the beginning of the revolutionary war he retired to Red Hook, N. J., where he died.

LAING, ALEXANDER GORDON, 1794-1826; b. Edinburgh. Having entered the British army, he served some years in the West Indies, and was in 1820 aide-de-camp to the governor of Sierra Leone. He was employed in negotiations with native chiefs for the suppression of the slave-trade and while so engaged explored the upper course of the Niger. On returning to England he was promoted to the rank of major, and in 1826 attempted an overland journey, with a caravan of native traders, from the Mediterranean to the gulf of Guinea, but was murdered near Timbuctoo. He published an account of his earlier explorations under the title of *Travels through the Timannee, Kooranko, and Soolima Countries to the Sources of the Rokelle and Niger*.

LAING, MALCOLM, 1762-1818; b. on the island of Mainland, Orkneys; educated at the university of Edinburgh, and admitted to the bar in 1785. His life, however, was mainly devoted to literature. He wrote a continuation of Henry's *History of Great Britain*, and a *History of Scotland from the Union of the Crowns to the Union of the Kingdoms*, embracing dissertations on the Gowry conspiracy, and on the Ossian poems, and, in the second edition, an essay arguing the guilt of Mary queen of Scots in the murder of Darnley. He was elected a member of parliament in 1807; died in the Orkneys.

LAIRD, JOHN, 1805-74; was b. in Greenock, Scotland. He was (1829) the first builder of iron steamships, and for a long time the head of the firm of John Laird & Sons, iron-ship-builders and engineers at Birkenhead, near Liverpool. He was the builder of the confederate privateer *Alabama*, in consequence of which his name became unpleasantly familiar to the loyal people of the United States. He held several offices of responsibility, and was a member of parliament from 1861 until his death at Birkenhead.

LAIRESSE, GÉRARD DE, 1640-1711; b. Liege. His father, a successful painter, urged his son to the study of literature, history, and music, in which he made rapid attainments; but to paint was his dominant passion, which developed so rapidly that at the age of 15 he excelled in portraits, and was already composing historical paintings for the electorate of Brandenburg. Extravagant in his tastes and pleasures, notwithstanding an extraordinary facility in work, he was always embarrassed. When at work he played the violin and painted alternately. In energy and rapidity of execution he equaled Rubens. He excelled in architectural effects, and in general his compositions were remarkable for grace and animation. Several of them are in the Louvre; in Holland and Belgium they abound. He became blind in 1690, and then composed a treatise on painting, published after his death, which occurred in Amsterdam.

LAJARD, JEAN BAPTISTE FELIX, 1783-1858; b. France. Attached in 1807 as secretary to the French ambassador to Persia, he spent three years traveling in that country, exploring its antiquities, studying oriental religions, and forming a collection of Babylonian curiosities of cylindric form which is in the national library in Paris. In 1815, while in government employ at Marseilles, he resumed archæological studies, and won the prize offered by the academy of inscriptions and belles-lettres upon the question of the origin of Mithradatic culture. He wrote upon the origin of the Aryan race, advancing an original theory since accepted by the learned. His published works are numerous, mostly archæological.

LAKANAL, JOSEPH, 1762-1845; b. France. Educated for the priesthood, but not ordained, he became a teacher, an enthusiastic participant in the great reforms of the French revolution, and one of the founders of a system of free education which was then decreed. An enthusiast for the transformation of society which he thought would result from the principles of the revolution, and moving with the turbulent tide of

revolutionary ideas, he voted for the death of Louis XVI. in 1792. Soon after he was made a member of the committee of public instruction, of which his energy soon made him head. He initiated most of the important reforms in the direction of universal education in France. In 1793 he procured decrees for the protection of the academy of science, for the regulation of property in literary and artistic works, for the establishment of the telegraph invented by Chappe, which up to that time had been neglected and opposed. In 1794-95 he proposed and obtained the laws for the organization of the normal school; the school for oriental languages; the bureau of longitudes; and the general system of primary and central schools. Through his efforts the *jardin des plants* was preserved and made a national museum of natural history. Elected to the council on 500 after the fall of Robespierre, he lost no time in submitting a plan for the organization of the national institute, which is now an honor to France; and was charged to designate the 48 original members who would elect the others. Lakanal was chosen by these to act with Sieyès to draw the rules for its government. In 1798 he was made commissary-general of the departments of the Rhine, to reform abuses and laxity of administration that had become shameful. His energy and probity justified the confidence in his administrative ability; and his extraordinary activity in provisioning and otherwise preparing Mayence and the Rhine for an efficient defense against the allies was warmly recognized by the French directory. After Napoleon's assumptions of power Lakanal occupied subordinate positions in educational institutions. On the accession of Louis XVIII. he was proscribed as a regicide, and came to the United States. President Jefferson gave him a distinguished welcome. Congress voted him 500 acres of land, and he was offered and accepted the presidency of the state university of Louisiana. In 1825 he resigned to retire to a plantation on the shore of Mobile bay, being the land given him by the government. On the accession of Louis Philippe in 1830 Lakanal offered his services to the new government, but was not recognized until several years later, when, on the motion of Geoffroy de St. Hilaire, he was restored to membership in the French academy; and returned to Paris in 1837. His literary works are few, his talent being more administrative than scholastic.

LAKE (*ante*). The lake on land is what the island is in the sea; the one being surrounded by water, the other by land. Lakes differ from lagoons (q.v.) in their origin; and from ponds in being fed by streams, either flowing at the surface, or subterraneous; while a pond, however large, is only the accumulation of water in a hollow: if it be regularly fed it becomes a lake, though small. The principal difference in lakes consists in the processes by which they receive and distribute their waters. Some have no apparent affluents nor outlet, others have affluents without any visible outlet, some have an outlet without any visible affluents, and others, again, have affluents and outlet, both visible. Lakes without outlets have the level of their waters horizontal, that is, parallel to the curvature of the earth: while those which have affluents and outlets are, on the contrary, more or less out of the horizontal level, sometimes, as in the case of Lago Maggiore, as much as 3 in. in a mile. The sheets of water which are so numerous in the country n. of the Caspian sea, in the plains between the Ural mountains and the Irtysh river, and in the great steppe between the latter stream and the Ob, are most of them ponds, formed by accumulated rain-water and melted snow, though some of them are 10 or 12 m. in circumference. Lakes or ponds of this character sometimes occur in the craters of extinct volcanoes, as in the case of one near Mendoza in the state of La Plata, which is 4,000 or 5,000 ft. above the sea, and is in some way connected with the active volcano of Antuco, since it frequently, when the latter is in eruption, pours a stream of muddy water over the adjacent district. The small lake of Nemi, about 20 m. from Rome, is undoubtedly in the crater of an extinct volcano; as are also the celebrated lake of Averno, and those of Bolsena and Bracciano. It is even believed that London stands on the site of what was once a lake of large size. The Caspian, the sea of Aral, and the Dead sea are instances of lakes which are fed by affluents without possessing any visible outlet. It is believed that the Aral sea or lake once communicated with the Caspian, and it is a frequent phenomenon for lakes whose affluents have diminished or disappeared, to continue supplied with water from unseen sources; while in other instances more water is received into certain lakes than can be accounted for in their visible outlets. In the latter case evaporation has been assumed by Halley and others to be a sufficient explanation. In the case of the lake Neusiedel, which formerly communicated with the Danube by means of the Raab, into which it emptied its waters, it now has no communication except by a mere swamp. Such lakes as are without a visible affluent are fed by subaqueous springs. Such bodies of water are usually situated at considerable elevations above the level of the sea, one on Monte Rotondo, in Corsica, being at an elevation of 9,069 ft.; while lake Tahoe, in California, is said to be more than 6,000 ft. above the level of the sea, lake Titicaca, in the Bolivian Andes, 12,000 ft. above the sea-level, and even the surface of lake Superior 600 ft. above the sea. On the question as to the origin of the saltiness of certain lakes, authorities differ. Some have thought that these bodies of water must owe their saltiness to receiving the saline impurities of their affluents; but there are many salt lakes without affluents, and their saltiness is doubtless due to their being fed by salt springs at their beds. The most common as well as the largest lakes are those which receive one or more tributary streams,

and have a visible outlet. Such are the lakes of Switzerland and northern Italy; lakes Ladoga, Onega, Peipus, and Ilmen, in Russia; others in Finland, Sweden, Lapland, etc.; the African lakes, the Tchad, the Ngami, Nyassa, and Victoria Nyanza; and the great lakes of North America, Superior, Huron, Erie, and Ontario. The origin of lakes differs as materially as their nature. Some occur through the sinking of the soil by the falling in of subterraneous caverns; and of this kind lake Baikal is an illustration. Others are formed by the action of earthquakes, as occurred in the province of Quito in 1797. The Oschenen-see, in the canton of Berne, was caused by the fall of a mountain; and the lakes Aidat and Cassiere, in Auvergne, France, by lava currents damming up a stream. Finally, it is believed that many are the remains of the universal ocean which once covered the earth. There are many curious phenomena connected with lakes. Some have floating islands upon them, as occurs in the case of a small lake near St. Omer; and in lake Gerdass, in Prussia, which has a floating island on which a hundred head of cattle may be seen pasturing; lake Kolk, in Osnabruck, Prussia, on which fine elms are growing; and lake Râlang, in Smolend, Sweden, where, it is said, a small island appeared and disappeared ten successive times between 1696 and 1766. At Jemtia, in Sweden, there is said to be a lake having a double bottom, whose alternate rise and fall changes the apparent depth of the lake. In Poland there is a lake supposed to be impregnated with sulphureted hydrogen, which is said to turn to a brown color the skin of those who bathe in it. Certain lakes are intermittent, a condition supposed to arise from a play of natural siphons which act as their feeders, as occurs in the case of intermittent springs. The lake of Geneva is sometimes affected by a subaqueous wind, known as the *Vaudaise*, which rises to the surface and so disturbs it as to endanger navigation; and near Boleslaw, in Bohemia, there is a lake whose depth has never been sounded, from the bottom of which rise in winter fierce gusts of wind, having sufficient force to send into the air masses of ice weighing several hundred pounds. The lake of Geneva and other Swiss and Italian lakes experience another phenomenon, called the *Seiches*, which consists in a movement of the water in the nature of a tidal wave, rising sometimes to the height of 5 feet. Water-spouts are not infrequent on lakes, notably on the lakes of Zurich and Geneva. In lake Huron there is a bay over which electrical clouds are perpetually hovering, and it is alleged that thunder there is constant. This phenomenon is attributed to the proximity of the locality of the American magnetic pole. Near Beja, in Portugal, there is a lake which is said to announce the approach of a thunder-storm by a portentous rumbling; and in Siberia, Roaring lake is so named from a similar characteristic, not, however, connected with atmospheric disturbance. Certain lakes deposit carbonate of lime on objects immersed in them, producing the condition known as incrustation; others have the property of inducing petrification. The lake of Zurich displays at times a curious phenomenon, known as the flowering of the lake, when its surface becomes covered with a yellow scum or froth, examination of which has discovered it to be minute vegetation. But perhaps a phenomenon of still more remarkable peculiarity is that which is found to occur in certain lakes of Canada, in the strange adhesive property of the mud which forms their beds, and which appears absolutely to amount to attraction. In such instances it becomes nearly impossible to propel a boat, the mud clinging to its sides with such force as to overcome the influence of the paddles; loaded boats are said to be often in danger of sinking from this cause, and have to be towed over the dangerous spots by those that are lighter. Lake temperature varies greatly in different instances; loch Ness, in Scotland, 810 ft. in depth in its deepest part, is never known to freeze. Some lakes are remarkable for the transparency of their waters; lake Superior being a remarkable instance of this quality—so pellucid that fish and rocks are visible to an almost incredible depth. The Norwegian lakes exhibit also this peculiarity, the bed with its covering of shells or pebbles being plainly visible at a depth of 100 to 120 feet: in lake Wetter, also, in Sweden, it is said that a coin the size of an American cent can be seen at the depth of 120 feet. But the value of lakes to mankind does not lie in their eccentricities, or even in their beauty as natural objects. They perform most important functions in the economy of the earth: acting as reservoirs of water in districts where the rain-fall is irregular; supplying moisture to the atmosphere through evaporation, and thus favoring vegetation in their neighborhood; and, in some cases, furnishing fisheries of great value. Many lakes are navigable, and are most important media of communication and transportation in thickly settled countries; while others, as the source of rivers that are invaluable to commerce, could ill be spared from the economy of civilization, as well as that of nature.

LAKE, a co. in s.w. California, nearly surrounded by the Bear mountains and Mayan-nas mountains, divisions of the Coast range; 700 sq.m.; pop. '80, 6,596—5,537 of American birth, and 1,256 Chinese. Clear lake, 25 m. in length, occupies the central part, discharging, through Cache creek, into the Sacramento river. It has steep and rocky mountains covered with pine, fir, and redwood, with thick underbrush, and yielding copper, gold, cinnabar, quicksilver, and marble. It had in 1876 one mining establishment of cinnabar, employing 75 men, with a capital of \$250,000 and a product of \$100,000. It contains Borax lake, which furnishes borax, and sulphur is found on the shores of Clear lake. The great valley of upper and lower Clear lake is extremely fertile, and on the hills is fine pasturage for horses, cattle, sheep, and swine, which are

raised in great numbers. Value of all live stock in 1870, \$314,210. Game abounds in the vicinity of the lakes, which are 112 m. from San Francisco, making it a great resort of sportsmen for both shooting and fishing; deer, bears, panthers, and foxes are numerous. Wheat, oats, barley, and wool are staple products, and fruit is advantageously cultivated. Value of real and personal estate in 1870, \$1,266,290. Seat of justice, Lakeport.

LAKE, a co. in central Colorado, lying on the w. side of the Saguache range of the Rocky mountains, and comprising the peaks of Massive mount, Mt. Harvard, Mt. Elbert, La Plata peak, and a number of lesser spurs; about 12,500 sq. m.; pop. '80, 23,814—13,645 of American birth. It holds the head waters of the Arkansas river, which flows s.e. in the neighborhood of the mountains, and it is watered by its branches, and those of the Gunnison river, and two or three small lakes in the north. It has good grazing facilities. The river bottoms have a fertile soil, with a heavy growth of timber, producing wheat, barley, oats, potatoes, and hay. Value of all live-stock in 1870, \$47,673; number of farms in 1870, 31, those under 50 acres 17, over 100 acres 1. It had in 1870, 13 placer mines, employing 72 men, with a capital of \$55,450 and product of \$60,485; also 2 quartz mines, employing 17 men above-ground and 19 in the drifts, with a capital of \$20,000 and product of \$67,500. Silver, gold, and lead are mined. It includes the flourishing mining city of Leadville, in the n.e. portion. Valuation of real and personal estate in 1870, \$185,190. Seat of justice, Granite City.

LAKE, a co. in s.e. Dakota, formed since the census of 1870; 576 sq. miles; pop. '80, 2,657. It is watered by lake Herman and a few small lakes in the central portion, and several small streams, affluents of the Vermilion and Big Sioux rivers.

LAKE, a co. in n.e. Illinois, has for its e. boundary lake Michigan, and for its n. the state line of Wisconsin. It is drained by the head waters of the Fox and the Des Plaines rivers. Its shore boundary is traversed by the Chicago, Milwaukee, and St. Paul railroad and the West Wisconsin division of the Chicago and North-Western railroad; 460 sq. m.; pop. '80, 21,299—16,327 of American birth. The surface is made up of rolling prairies, having a dark soil, rich with every element of fertility. It has extensive tracts of timber, which grows luxuriantly on the banks of a number of picturesque little lakes, the largest being lake Pishtaka, in the western part, nearly 7 m. in length. Number of unimproved acres of woodland in 1870, 21,072. Among the manufactures are carriages, pumps, and bricks. It has a cheese factory, tanneries, currying establishments, and a brewery. The staple products are wheat, rye, Indian corn, oats, barley, and buckwheat. Value of home manufactures in 1870, \$835. Value of all live-stock, \$1,632,632. Total value of all farm production, including betterments and additions to stock, \$2,265,727. Value of real and personal estate, \$18,930,128. Seat of justice, Waukegan.

LAKE, a co. in n.w. Indiana, having for its n. boundary lake Michigan, for its w. the state line of Illinois, and for its s. the Kankakee river. It is watered by the Calumet river, and the Deep river, one of its branches, emptying into lake Michigan. Its northern portion is crossed by two great routes to Chicago—the Pittsburg, Fort Wayne and Chicago, and the Lake Shore and Michigan Southern railroads. The Pittsburg, Cincinnati and St. Louis railroad intersects it centrally; 480 sq. m.; pop. '70, 12,339—8,742 of American birth. The surface is flat and low, and sinks into deep marshes in the southern portion along the Kankakee river. It has sufficient timber-bearing tracts, and had in '70, 28,279 acres of unimproved woodland. The soil of the prairie land in the central portion is very fertile, and well adapted to the cultivation of grain. It produced in '70, 15,594 bush. of spring wheat, and 6,242 bush. of winter wheat; 3,465 bush. of buckwheat, 146 galls. of wine, 5,778 lbs. of hops, and 6,255 galls. of sorghum; other products are butter, cheese, flaxseed, and potatoes. Value of all live stock in '70, \$1,023,341, and 49,989 lbs. of wool were produced. Total estimated value of all farm productions, including betterments and additions to stock, \$968,925. It has 5 flour-mills and a brewery; other manufactories furnish carriages and bricks. Valuation of real and personal estate, \$8,939,115. Seat of justice, Crown Point.

LAKE, a co. in Michigan, in the n.w. portion of the southern peninsula, near lake Michigan, and watered by the Memoosie, Pine, and Marquette rivers; the two first flowing into the Manistee river, and thence into lake Michigan, the latter discharging into the lake. The Flint and Père Marquette railroad crosses the southern portion, s. of which the country is dotted with picturesque little lakes; 576 sq. m.; pop. '70, 548. It has large forests of pine and sugar-maple trees, on a generally level surface. Number of farms in '70, 40, none over 50 acres, and 2,735 acres of unimproved woodland. Value of all live-stock, \$6,992, principally sold for slaughter. Wheat, buckwheat, oats, and Indian corn are the principal products. Seat of justice, Chase.

LAKE, a co. in n.e. Minnesota, has lake Superior for its s. and e. boundary, giving it a triangular form; for its n. and n.w. border, Keewatin, a district of Canada attached to Manitoba, with Lake of the Woods, 100 m. in length; other smaller lakes and Arrow river complete the line. It is bounded on the n.w. by little navigable lakes, that separate it from Hunter's island, and on the w. by St. Louis co.; about 3,000 sq. m.; pop. '70, 135. It has numerous little rivers, among them the Manito and Temperance, flowing from small lakes in its center to lake Superior. The surface is thinly timbered and divided into high ridges of hills, with a considerable growth of pine, and low, wet land.

Of mineral deposits copper, iron, and granite are known to be in great abundance. It has very few farms, and those produce mostly wheat and barley. Valuation of real and personal estate in '70, \$99,202. Seat of justice, Beaver Bay.

LAKE, a co. in n.e. Ohio, on the s. shore of lake Erie, which forms its n. and w. border, and gives it a triangular shape. It is traversed by the Lake Shore and Michigan Southern railroad, passing in the vicinity of the lake, and is intersected by the Painesville and Youngstown railroad passing through the center. The Grand and Chagrin rivers and numerous little rivulets flow through it, emptying into the lake; 250 sq.m.; pop. '70, 15,935—14,263 of American birth. The surface is diversified, rising into slight elevations with corresponding depressions, giving, with occasional groves of beech, elm, pine, oak, and maple trees, a pleasing variety. Its forests furnish an abundance of timber, and the sugar-maple trees provide an important article of home consumption. Fruit is raised, of fine flavor and large size; other products are wheat, corn, oats, hay, barley, buckwheat, rice, and potatoes. Underlying it is a formation of Devonian shale, and other indications of the carboniferous period. Iron ore is found. The soil is a sandy loam and very productive. It contained in '70, 1626 farms, and 30,576 acres of unimproved woodland. Total estimated value of all farm productions, including betterments and additions to stock in '70, \$1,368,588. Value of all live stock, \$900,766. Value of home manufactures, \$60,661. Among the industries are the manufacture of carriages, drugs and chemicals, explosives, tobacco and cigars, iron castings, tin, copper, and sheet-iron ware, and bricks. The water-power is utilized by flour and saw mills. Valuation of real and personal estate, \$14,171,449. Seat of justice, Painesville.

LAKE, a co. in n.w. Tennessee, has for its w. boundary the Mississippi river, which forms the w. frontier of the state; and for the e. border, lake Reelfort and a branch of the Obion, once a confluent of the Mississippi; leaving only a small section of the northern and southern lines to save it from becoming an island; 150 sq.m.; pop. '70, 2,428—2,389 of American birth, and 393 colored. The surface is formed of level plains, subject to overflow, and overspread with forests of oak, hickory, gum, cypress, and beech. The soil produces corn, cotton, and pork. Its products in '70 were 414,570 bush. of Indian corn, 52 bales of cotton, 815 lbs. of wool, 4,382 bush. of sweet potatoes, 25,548 lbs. of butter, 1880 galls. of sorghum, and 1852 lbs. of honey. Some attention is given to the raising of live stock. Value of the mechanical and manufacturing industries in '70, \$18,350. Valuation of real and personal estate, \$1,528,139. Seat of justice, Tiptonville.

LAKE, GERARD, Viscount, 1744—1808, b. England; entered the army when only 14 years of age, and fought in the seven years' war. He also served in America, with the duke of York in Holland, and was commander-in-chief in Ireland during the troubles in 1797—98. In 1800 he was sent by the marquis of Wellesley to India, where he was in chief command in the Deccan, and captured Delhi by an adroit strategic movement. He also took Agra, and continued his successful campaign until he had totally defeated the restless and enterprising chief, Scindia, and gained possession of all his dominions north of the Chumbul river. Gen. Lake was now raised to the peerage by the title of baron of Delhi and Laswaree, and after the campaign of 1804—5, he was created a viscount. He died at Plymouth, Eng., of which place he had been appointed governor.

LAKE DWELLINGS, huts, or houses, built upon piles sunk in the beds of lakes, and which are found in central Africa and in the islands of the Indian archipelago. Remains of settlements of this character have been discovered beneath the waters of the lakes of Switzerland, Italy, and other countries of Europe, and in Asia, apparently disclosing a period of antiquity extending back to prehistoric times. Accordingly the term has come to be employed particularly in regard to prehistoric remains of this class of habitation, and its use is almost always with this significance. The first discovery of lake dwellings was made in 1829, at Ober-Meilen, on the lake of Zurich; and this, in spite of the fact that legends suggestive of the existence of such remains had been prevalent in Switzerland, and in parts of France—notably at Voiron, department of Isère—for centuries. The Zurich discovery consisted of remains of piles and certain antiquities; but though curiosity was aroused concerning the finding of these at the bottom of the lake, it was not until 1853—54 that any investigation was made. The occurrence of a season when the waters of the lake fell unusually, facilitated examination, and it was found that two distinct beds existed. The first of these was from 1 to 2 ft. in thickness, and consisted of yellowish mud, containing quantities of rounded pebbles. The second bed was from 2 to 2½ ft. thick, consisting of sandy loam, colored black by decayed organic matter. In this latter bed were found piles and a large variety of antiquities of different kinds. The piles were of oak, beech, birch, and fir, and were from 4 to 6 in. thick. They showed evidence of having been formed partly by the action of fire, which had been used in some instances to sharpen the ends which were imbedded. There were also marks of three lumsy tools of the period, whose slow and imperfect action had been hastened by means of the application of fire. Here were also found tools and implements of stone, bone, and horn; and bones of the stag, wild goat, wild boar, fox, cow, sheep, and dog. There were stone celts, or hatchets, made in the form of a wedge, and varying in length between 1 and 8 in., and in weight between ¼ oz. and 1 lb. Some of these were made from a kind of stone which does not

now exist in the vicinity of the district where they were found. Some were of syenite, others of black sandstone, and some of jade; the latter not being found in Europe, but which has been employed by the Maoris of New Zealand in the construction of hatchets. In the Zurich specimens they were found set in a hafting of stags' horn, and in wood handles. There were also discovered examples of pottery; stones which had been formed for use as net-weights, etc. In 1865-66 investigations at Voiron, already alluded to, resulted in the discovery of the remains of lake dwellings, where were found also bones, implements, and pottery, some of the latter resembling that of the Roman period. These dwellings were erected on piles, tenoned and mortised, and with door-posts and window-frames. There were also iron weapons and utensils; awls, gimlets, cramps, chisels, and knife-blades; and even keys, fish-hooks, and horse-shoes; a leaden bracelet, blue jewelers' paste, and other extraordinary evidences of an advanced degree of civilization, and even luxury. In Italy, from the extreme north to the shores of the Adriatic, these lacustrine remains have been brought to light; while similar instances have been found in Scotland and in n. Wales. They have also been discovered on the borders of Asiatic Turkey and Russia, in the Grocktscha, or Lewanza-lake, between the Araxes, Kura, and Euphrates rivers. The Irish *crannoges*, artificial fortified islands, partake of the same characteristics, and are found in certain of the Irish lakes; they are attributed to the 9th and 10th centuries. Among the lacustrine remains found in different parts of Europe have been discovered relics of the stone, iron, and bronze ages. Yet, as it is certain that these so-called "ages" occurred at different periods in different parts of the world, we have not, in consequence of this fact, any reliable data as to the precise antiquity of such relics. Herodotus (450 B.C.) described the Pæonians as living on platforms in lake Prasias. The fact that dwellings of this character are found to the present day among certain savage races, and that implements, ornaments, and utensils have preserved general characteristics wherever found, or of whatever period, are circumstances which are to be taken into grave consideration in attributing a specific antiquity to the Swiss and Italian lacustrine remains. The instinct of self-preservation from wild beasts, and the unknown or imaginary terrors of a gloomy forest country, would be suggestive to any savage race at any period of the advantages of lake-dwellings.

LAKE FOREST UNIVERSITY, in Lake Forest, Lake co., Ill., a Presbyterian institution, founded in 1857. In 1879 it had 25 instructors and 225 students; D. S. Gregory, D.D., president.

LAKES (*ante*), certain pigments made by combining vegetable or cochineal dyes with metallic oxides, usually alumina or tin. Carmine lake is made by adding an alkali to a decoction of cochineal and alum, and the residues and mother liquors, which are produced in the preparation of carmine, are used for this purpose; but a carmine lake was made at Florence from Kermes mineral before cochineal was brought to Europe. Violet and purple lakes are made by adding a solution of alum to a decoction of logwood and precipitating in the cold by carbonate of potash. Yellow lakes are prepared in various ways. Dutch pink is made from Persian berries by making a decoction of them with potash or soda solution, and adding alum solution as long as a precipitate takes place. The addition of a solution of chloride of tin brightens the solution. Fustic lake is made by adding to a decoction of the wood glue or skimmed milk to remove the tannic acid. Alkali is added to remove acidity, and then the precipitation is accomplished by alum solution. Quercitron and wild lakes are made by similar processes. Orange lakes are made from arnotto or turmeric by similar processes. Blue lakes are prepared by adding sulphate of copper (blue vitriol) to a solution of logwood and precipitating in the cold with potash, or by precipitation with carbonate of potash from a solution of sulphindigotic acid and alum. Green lakes may be prepared by mixing blue or yellow lakes with blue or yellow pigments, or they may be made by a primary process. A decoction of coffee berries with sulphate of copper yields a good green lake by the addition of a moderate quantity of caustic potash. The addition of acetic acid heightens the color. Lakes are often adulterated by adding such substances as gypsum and white clay. A good eye will detect the adulteration at once from the loss of brilliancy, but a chemical test will detect the lime base in the gypsum or the silica in the clay.

LAKE SURVEY. The shore line of the great lakes and rivers following the principal indentations is about 6,000 miles. The work to be done in surveys, soundings, etc., approaches in magnitude that of the Atlantic coast. The first appropriation to defray expenses was made in 1841 of \$15,000. Previous to 1862 the largest annual appropriation had been \$75,000, since which it has varied from \$50,000 to \$175,000. The first charts were published in 1852, but they were only of charts of localities, as a general survey had not then been made. After this the work became more extensive. It is very much like the work on the Atlantic coast, and is performed by primary triangulation in the first place, to be followed by secondary and tertiary, and by hydrographic surveys. Some of the work has been intricate, requiring many nice mathematical processes. In some places where primary triangulations would have been difficult of direct application, as along the American shore of lake Huron, many points have been determined by a combination of triangulation and astronomical work. On the lake Michigan shores many positions were obtained by carrying lines from known points. The work has been car-

ried on with commendable energy, and a great portion of the triangulation has been completed, and the hydrography of the harbors carried on to meet the demands of navigation.

The following are the officers who have been in command of the work: Capt. W. G. Williams, T.E., 1841-45; lieut.col. J. Kearney, T.E., 1845-51; capt. J. N. Macomb, T.E., 1851-56; lieut.col. J. Kearney, T.E., 1856-57; capt. G. Meade, T.E., 1857-61; col. J. D. Graham, T.E., 1861-64; col. and brevet brig.gen. W. F. Reynolds, engineers, 1864-70; major and brevet brig.gen. C. B. Comstock, 1870-81.

LALEMANT, CHARLES, 1587-1674, b. France; went to Canada in 1625 as superior of the missions; in 1634 established the first school in Quebec; was at the deathbed of Champlain, returned to France in 1638, and was rector of Jesuit colleges at Rouen, La Flèche, and Paris, and died in the latter city. His letters on the missions of Canada were reprinted in Albany in 1870.

LALEMANT, GABRIEL, 1610-1649; b. France. He was a nephew of Jérôme Lalemant, entered the society of Jesus in 1630, and sailed for Canada in 1646. He was sent to the Huron mission, was taken prisoner by the Iroquois Indians, and with father Brebœuf was put to death, after the savages had tortured them for many hours.

LALEMANT, JÉRÔME, 1593-1673; b. France; a French priest who entered the Jesuit order in 1609, and after having been rector of various colleges in France, sailed for Canada in 1638, where he served as superior of all the Canadian missions from 1644-50. He made two trips to France, and became for a short period rector of the college of La Flèche, but returned to Canada in 1659, and died in Quebec in 1673. He wrote five of the *Jesuit Relations* of the Huron missions, and six of the general volumes for the years 1645-48 and 1661-64.

LALLEMAND, CLAUDE FRANÇOIS, 1790-1854; b. Metz, France; professor of clinic medicine at Montpellier in 1819; removed for his political opinions in 1823; reinstated in 1826; in 1845 elected a member of the academy of sciences in Paris. Afterwards he accepted position as physician to Ibrahim Pasha and Méhémet Ali in Egypt. In 1857 he was a member of the international jury of the London world's exposition. His special study was of the brain and its environments and the connection between genital and cerebral diseases. His most important work was *Récherches anatomico-pathologiques sur l'Encéphales et ses Dépendances*, which has been translated into many languages. His other works are also of standard authority.

LAMA, or LAMAS, GRAND. See LAMAISM, *ante*.

LAMAR, a co. in n.e. Texas, has the Red river for its entire n. boundary, separating it from the Indian territory, and Sulphur Fork, a branch of the Red river, for its s. border. It is watered by many little rivulets from either stream; about 1050 sq.m.; pop. '80, 27,191-26,906 of American birth, and 4,410 colored. It is intersected centrally, from e. to w., by the transcontinental division of the Texas and Pacific railroad. It had in 1870, 144,208 acres of unimproved woodland. Forests of ash, hickory, oak, and walnut diversify the generally level surface of the prairie, and the Osage orange, used largely for hedge-fencing, is a natural product. It has fine pasture land, and the soil is adapted to fruit-growing, grain, and the raising of cattle. Its products are winter wheat, Indian corn, oats, and sorghum, honey, wax, and sweet potatoes. Cotton and tobacco and wool are extensively cultivated. Number of farms in '70, 752; value of all live stock in '70, \$473,301; value of home manufactures, \$2,972, principally of furniture, saddlery, and harness. Value of real and personal estate, \$2,206,391. Seat of justice, Paris.

LAMAR, LUCIUS QUINTUS CINCINNATUS, 1797-1834, educated at the Litchfield, Conn., law school, and on being admitted to the bar, settled in Milledgeville, Ga., 1819, where he soon achieved a high reputation. Made judge of the circuit court in 1830, his decisions became recognized authority. He compiled the statutes of the state of Georgia by appointment of the legislature. Judge Lamar committed suicide July 4, 1834, for no known cause, as he was peculiarly happy in all his relations, his ability acknowledged, and his position secured.

LAMAR, LUCIUS QUINTUS CINCINNATUS, b. Ga., 1826; received his education at a local institution; prosecuted the study of law, and afterwards practiced in Mississippi, from which state he was elected to congress in 1856. He was re-elected, but retired after the secession of his state in 1861. During the war of the rebellion he held a colonel's commission in the confederate army, but filled a responsible mission abroad, and was not in active military service. He was elected to congress in 1872, re-elected in 1874, and in 1877 took his seat as U.S. senator from Mississippi, his term to expire Mar. 3, 1883. Mr. Lamar at one time held the position of assistant editor of the *Southern Review*, and was adjunct professor of mathematics in the university of Mississippi. He was professor of political economy and social science in the same institution in 1866, and professor of law in 1867.

LA MAR MORA, ALBERT, Count, 1789-1863; b. Turin, Italy; educated for the army at Fontainebleau, and served with distinction, being decorated by Napoleon I., after the battle of Bautzen. He fought on the side of the Sardinians in 1814, and during the

military insurrection in 1821. On account of his latter course he was exiled to Sardinia, and remained there during nearly ten years, which he occupied in profound study and investigation of the natural characteristics of the island. The result of his labor appeared in an elaborate report, which is highly esteemed. In 1831, being recalled from his exile by the government, he was restored to favor and became a member of the *Accademia delle Scienze* of Turin. He was, nevertheless, as revolutionary as ever in spirit, and on the outbreak of the great movement of 1848, he joined Daniel Manin and became prominent during the unsuccessful revolt of Venice. Later he assumed the character of peacemaker, and by his wise counsels succeeded in allaying much of the irritation which existed among the leaders of the contending parties. His great work, written in French, and comprising an atlas and description, is entitled, *Voyage en Sardaigne, on Description Statistique, Physique, et Politique de cette Isle*.

LAMARQUE, MAXIMILIEN, Comte, 1770-1832; b. France; joined the army as a private soldier in 1791, and soon rose to be capt. of grenadiers in the famous corps commanded by Latour d'Auvergne, first grenadier of France. He was made a brig. gen. in 1801, and distinguished himself in the battles of Austerlitz and Wagram, and in the campaigns of the Tyrol and Naples (under Joachim Murat), and in Italy. Having taken the island and fortress of Capri from the English, he was made a gen. of division; and on Bonaparte's return from the island of Elba, he gave Lamarque the command of the city of Paris, and afterwards made him commander-in-chief of the army of La Vendée. In 1815, he was proscribed by the restored Bourbons, and retired to Amsterdam, where he remained until 1818, when he returned to Paris, and contributed articles on foreign politics to the opposition journals. In 1828 he was elected to the chamber of deputies, where he became an important member of the opposition or progressive party. The republican disaffection, which had for some time been apparent in France, broke out into open insurrection on the occasion of the funeral of gen. Lamarque, who died June 1, 1832. Funeral orations were delivered on the place de la Bastille; and, at the conclusion of the address of gen. Lafayette, a red flag was unfurled, and the dragoons who were posted about, in anticipation of trouble, were fired upon. The national guards who were in the procession quitted it in disorder; and the insurgents raised the cry "to arms," and began to build barricades, break lamps, and otherwise conduct themselves after the disorderly fashion of a Paris *emeute*. Night (June 5) brought a temporary cessation of the disturbances; and meanwhile the king (Louis Philippe) arrived from St. Cloud, and visited the different military posts. On the morning of the 6th the insurgents were in possession of certain quarters, but were soon surrounded by the troops, and forced to remain behind their barricades. The king issued from the Tuilleries at the head of a brilliant staff, giving fresh confidence to the soldiers, and the barricades were carried; the troops losing 55 killed and 240 wounded; the national guards 18 killed and 104 wounded; and the insurgents 93 killed and 291 wounded. Paris was placed, by royal ordinance, in a state of siege; Garnier Pages and other deputies, and Armand Carrel, editor of the *National*, were arrested, and the polytechnic school and the school of Alfort were closed, on account of some of their students having taken part in the disturbance.

LA'MAS, ANDRES, b. Montevideo, 1817; a distinguished Uruguayan statesman, held also in high esteem for his learning, and particularly for his acquirements in the department of South American history. He held the office of prefect of Montevideo during the siege which began in 1839 and lasted nine years; he was also minister of finance, and was frequently sent on important diplomatic missions to other governments. He founded an institute of history in his native city, and made a large and valuable collection of manuscripts illustrative of South American history, many of which he has published.

LAMB, Lady CAROLINE. See MELBOURNE, WILLIAM LAMB, *ante*.

LAMB, CHARLES (*ante*). His first volume of poems was severely attacked in the *Anti-Jacobin*. This was in 1797; and in the following year he published *Rosamund Gray and Old Blind Margaret*, which was favorably reviewed in the *Monthly Review*; and followed this, in 1801, with *John Woodvil*, a tragedy, which was offered to John Kemble, and by him rejected. This work came under the castigation of the *Edinburgh Review*. A farce by Lamb called *Mr. H*— was a failure at Drury Lane theater, though Elliston played the leading part; while at Philadelphia, with Mr. John Wood in the same character, it had a successful run. *Specimens of English Dramatic Poets who lived about the time of Shakespeare*, published in 1808, was favorably reviewed by Disraeli, Singer, and Talfourd; yet Allibone terms it "a collection disfigured by indecencies." The *Essays of Elia* were published in a collected edition in 1823. Lamb retired from the India office with a pension of £450, yet, excepting the *Last Essays of Elia* (1833), he wrote nothing of importance during the 9 years of absolute leisure which preceded his death. Mary Lamb was a woman of refined and cultivated taste, and considerable felicity of expression in writing. She composed, in company with her brother, *Mrs. Leicester's School* and *Tales from the Plays of Shakespeare*.

LAMB, JOHN, 1735-1800; b. New York. He was engaged with his father in the business of an optician and maker of mathematical instruments at the beginning of the

revolutionary war, but at 40 years of age enlisted in the army and took a prominent part in Montgomery's unsuccessful expedition against Quebec, in which he was wounded and taken prisoner. He afterwards served under gen. Knox as maj. and col. of artillery, doing good service to the end of the war. He was afterwards a member of the New York legislature, and later still collector of the port of New York, a post which he held until his death.

LAMB, MARY ANNE. See LAMB, CHARLES.

LAMB, WILLIAM, Lord MELBOURNE. See MELBOURNE, *ante*.

LAMBERT, DANIEL, 1769-1809; an Englishman noted for his gigantic size. Until he reached his 19th year he was not remarkable for weight or dimensions, but from that period continued to grow, until, at his death, he measured 5 ft. 11 in. in height, 9 ft. 4 in. girth, 3 ft. 1 in. round the leg, and weighed 739 lbs. Lambert was keeper of the Leicester prison, succeeding his father in this position while a young man; and to the confinement and sedentary nature of his occupation he attributed his abnormal growth, which, however, was undoubtedly due rather to a strong natural predisposition to obesity.

LAMBERT, FRANCIS, or LAMBERT of Avignon; so called from the name of his native place; 1487-1530; was one of the early apostles of the reformation. He became a gray friar when only 16 years of age, was ordained a priest, and preached with success. In 1522, having been refused permission to join the Carthusians, he attached himself to the cause of Martin Luther, and embraced the doctrines of the reformers. He now threw aside the garb of his order, assumed the name of John Serranus and began to preach the reformed faith in Germany and Switzerland. He joined Luther in 1523 at Wittenberg, and thence, having written his commentaries on Hosea and other works, proceeded to Metz and Strasburg. A Protestant academy having been established at Marburg, he became its first professor of theology; and in 1529 took part in a general conference held at that place of theologians from the different German provinces. His contemporaries unite in describing Lambert as a learned, industrious, and upright man.

LAMBESSA, or LAMBÈSE, a French penal colony in Algiers, in the province of Constantine, the ancient Numidia. The city of Lambæsa, on whose site the present town is built, was a place of importance, having about 50,000 inhabitants, being a Roman military station. Ruins remain, comprising extensive walls and fragments of imposing structures, with statues and busts of distinguished personages and Roman deities. The present Lambessa contains a secure prison, built at an expense of about \$350,000. The settlement is under the immediate control of a French commander, and is guarded by a sufficient number of officers and soldiers.

LAMBETH ARTICLES. The Calvinistic doctrine of predestination and free-will, having been brought by the refugees from the continent to England, was favored by prof. Cartwright of Cambridge, but opposed by Barret, a fellow of Caius college. Archbishop Whitgift directed him not to preach such doctrine again. Dr. Whittaker, the regius professor, supported the doctrines, and he and his party drew up nine articles which they submitted to the archbishop, who, Nov. 10, 1595, called at Lambeth an assembly to consider the question, consisting of Fletcher, the elect of London; Vaughan, elect of Bangor; Trindall, dean of Ely; Whittaker, and the Cambridge divines. They drew up the following nine articles, known as the "Lambeth Articles": "1. God from eternity predestinated certain persons unto life, and reprobated certain persons unto death. 2. The moving cause of predestination to life is not the foresight of faith, or of perseverance, or of good works, or of anything that is in the persons predestinated, but the alone will of God's good pleasure. 3. The predestined are a predetermined and certain number, which can neither be lessened nor increased. 4. Such as are not predestinated to salvation shall inevitably be condemned on account of their sins. 5. The true, lively, and justifying faith, and the Spirit of God justifying, is not extinguished, doth not utterly fail, doth not vanish away in the elect, either finally or totally. 6. A true believer—that is, one who is endued with justifying faith—is certified by the full assurance of faith that his sins are forgiven, and that he shall be everlastingly saved by Christ. 7. Saving grace is not allowed, is not imparted, is not granted to all men, by which they may be saved if they will. 8. No man is able to come to Christ unless it be given him, and unless the Father draw him; and all men are not drawn by the Father, that they may come to his Son. 9. It is not in the will or power of every man to be saved." The archbishop approved the articles Nov. 20, 1595, and sent them to Cambridge, but the queen ordered them to be recalled, and severely censured the archbishop.

LAMBTON, a co. in s.w. Ontario, Canada, bounded on the n. and the n.w. by lake Huron, and on the w. by the river St. Clair, which is navigable by large steamboats; 725 sq. m.; pop. 70, '31,994. It is intersected horizontally by three railroads—the Grand Trunk railroad, the Port Sarnia branch of the Great Western railway, and the St. Clair branch of the Canada Southern railway. It is drained by the Little Bear and Black creek in the s., and a few small streams in the n. and n.e. It has a fertile soil, and along the shore of the lake are beaches of sand and Silurian limestone, near which are tangled forests of cedar and fir in the almost impenetrable swamps; while in the interior the soil is more sandy and the trees are scattered and scrubby. It has saw, grist, and shingle

mills, and manufactories of wooden and iron ware. It has springs of petroleum oil in the southern portion, at Oil Springs, where 35 oil wells have been opened and several are still operated, and at Petrolia 100 wells, producing from 8,000 to 10,000 barrels weekly. Seat of justice, Sarnia.

LAMENTATIONS OF JEREMIAH (*ante*) have been universally acknowledged by the Jews as the work of their weeping prophet, and have his name attached to them in the Septuagint version—made about 260 B.C.—which declares also that he wrote them very soon after the Jews had been carried captive and their city destroyed. This declaration the subject-matter and style very well sustain. The book is divided into five parts by peculiarities of structure which, appearing fully in the original, are partly preserved in the Septuagint, but are noticed in the English translation only by the number of chapters and verses being retained. The first, second, and fourth parts each contain 22 verses, which, with one or two variations, are arranged in the order of the Hebrew alphabet and all begin with the corresponding letter; the third multiplies this arrangement by three—each letter beginning three verses in succession—so that the whole number of its verses is 66; and the fifth contains 22 verses, but their initial letters are not in alphabetic order like the rest. I. Lamentation over the solitariness of Jerusalem after the people had been carried captive: the change in its civil state and religious privileges mourned over; its sins acknowledged as the justly procuring cause; its friends complained of as false, timid, and cruel; the Lord penitently sought as the only source of help. II. The destruction of the city lamented: of its dwellings, palaces, altars, temple, gates, walls, ramparts, and strongholds; the sufferings of little children bewailed; mourning by the young and old over the strong and the weak slain in the streets; the sorrow aggravated by the exultation of enemies over the city that had once been called “the perfection of beauty and joy of the world;” the false prophets condemned for misleading the people; and the Lord again invoked as alone able to save. III. Lamentation of the prophet as representing the people himself, and perhaps Christ, who was thought by some to be Jeremiah, probably because of his tears over the sins and sorrows of men, his estimate of himself as eminently the man who had seen affliction through the visitation of God upon sin; his hope arising in darkness through his remembrance of the divine mercy, compassion, and faithfulness; his conviction of the good resulting from both hoping and waiting for the salvation of God, and from bearing the yoke submissively, seeing that afflictions have a benevolent design and are not to continue forever; the afflicted exhorted to try their ways, acknowledge their transgressions, and turn to the Lord; deliverances recounted which the prophet had already received from the depths of the dungeon into which he had been cast. IV. Lamentation over the desolation of the land, especially as contrasted with its former prosperity and glory: the sons of Zion, once regarded as fine gold, now compared to earthen vessels; mothers once tender and self-denying, now selfish and cruel; persons once living in luxury and clothed in scarlet, now desolated and defiled; the protracted misery of Jerusalem regarded as more bitter than the sudden destruction of Sodom; and all this confessed to be the result of its own transgressions, of the sins of its prophets, and the iniquities of its priests. V. Final appeal to the Lord as alone able to deliver and willing to forgive: the calamities of the nation again recited; the sins that caused them penitently confessed; and God, as eternal and almighty, entreated to turn his people back to himself and to renew the blessings they had formerly enjoyed.

LA METTRIE, JULIEN OFFRAY DE, 1709–51; b. France; educated for the church, he was disinclined to adopt that profession, and studied medicine at Leyden with Boerhaave. Being in Paris in 1742 he was appointed physician to the *gardes française*, and, with his regiment, was present at the important battles of Fontenoy and Dettingen. In 1745 he began to make public atheistic views which he had formed, the result being that he was deprived of his position and driven out of France and Holland. Up to this time he had published three philosophical treatises: *Histoire Naturelle de l'Âme*; *Politique du Médecin de Machiavel*; and *L'Homme-machine*. Having attracted the attention of Frederick the great, he was by him invited to Berlin, appointed to a position, and encouraged to continue his authorship. He accordingly wrote *L'Homme-plante*; *Réflexions sur l'Origine des Animaux*; and *Vénus Métaphysique, ou Essai sur l'Origine de l'Âme Humaine*. The materialism of Mettrie was due to the effect upon his mind produced by a serious fit of sickness. Finding that his mind and body were apparently becoming enfeebled together, he conceived the idea that the death of the soul must be simultaneous with that of the body. Voltaire, who was best acquainted with him, said he was “a fool that never wrote except when intoxicated.”

LAMNIDÆ, a family of sharks, represented by two well-defined groups, viz.: *lamnæ*, having lanceolate teeth, sigmoidally curved and not serrated, including the mackerel or green-back shark, and the ferocious *man-eater* of the American coast; and *carcharodontes*, having triangular and serrated teeth, including *carcharodon Atreodii*. Enormous teeth of carcharodon have been found in the tertiary formation and occasionally in the cretaceous, and teeth undistinguishable from carcharodon have been dredged from great depths in the Atlantic ocean by the “*Challenger* expedition.” Remains of other sharks have been found occasionally in the paleozoic, more frequently in cretaceous (upper greensand), and in eocene tertiary (London clay).

LAMOILLE, a co. in n. Vermont, watered by branches of the Onion river; the Lamoille flows through it centrally, and a few small lakes appear in the northern section; 445 sq. m.; pop. '80, 12,684. It includes some of the northern spurs of the western range of the Green mountains, and the three peaks of mount Mansfield in the western part, 20 m. n.w. of Montpelier, and 24 m. s. by n. from Burlington, the highest having an altitude of 4,420 ft. above the level of the sea, and called respectively the Chin, the Nose, and the Forehead. The rocks on these mountains are partly of old red sandstone, containing iron ore and manganese, and in some localities have a geological formation consisting of hornblende, granite, and gneiss. It has extensive forests of evergreen trees, and rich green grass on the surface of the hills, changing into a growth along the river bottoms of beech and sugar-maple, white oak, ash, etc. It has fine pasturage: hay, oats, wool, buckwheat, rye, and potatoes are the staple products, and maple sugar is an article of export. It is intersected by the Burlington and Lamoille railroad, and the Portland and Ogdensburg railroad (Vermont division). The manufactures are lumber, leather, and starch. Number of farms of all sizes in '70, 1610. Cattle, sheep, and swine are raised, and horses for the New England market. Value of live stock in '70, \$1,060,330; value of home manufactures, \$3,830; valuation of real and personal estate, \$6,015,609; cash value of farms in '70, \$5,675,180. Seat of justice, Hyde Park.

LAMOILLE RIVER, in n. Vermont, rises in Longpond, about 30 m. n.e. of Montpelier, in the extreme s. part of Orleans co. After flowing s.w. for a short distance in Caledonia co., it changes its course to w.n.w. through Lamoille co., and again to s.s.w. in Franklin co., thence through Chittenden co., emptying into lake Champlain near the s. extremity of Grand island. Winding among the gentle slopes of the Green mountains, its course is marked by fertile valleys, and, with its tributaries, it furnishes extensive water-power for a large number of saw mills in the manufacture of lumber; about 7 m. from its mouth it falls 150 ft. in a course of 300 yards. Slate, gneiss, and limestone are found along its banks, and granite is quarried in the vicinity of the towns.

LA MOTTE-FOUQUÉ. See FOUQUÉ, *ante*.

LA MOTTE-VALOIS, JEANNE DE LUZ DE ST. RÉMY, Comtesse de, 1756-91; b. Champaigne, France; an irregular descendant of Henry II. She was an adventuress who married a worthless count de La Motte, was involved in intrigues with the cardinal de Rohan; afterward in some crime concerning a diamond necklace which, in her memoirs, she accuses Marie Antoinette of having been an accessory to; was condemned, evaded prison, and escaped to London, where in a revel she is said to have fallen out of a window and died. She is supposed to have been under pay of Marie Antoinette. The memoirs alluded to were seized on their first appearance by the authorities, and the entire edition searched for and supposed to be destroyed; but it subsequently reappeared under the title of the *Vie de la Comtesse de La Motte*. Carlyle has written a story of *The Diamond Necklace*.

LAMOURE, a co. in central Dakota, formed since the census of 1870; about 1800 sq. miles. It is watered by the James river, flowing s.e. from counties in the north, and constituting its s.e. boundary line.

LAMPADEPHORIA, the name given to a ceremony customary in Athens at the celebration of the festivals of the so-called "fire-gods," Prometheus, Vulcan, and Minerva. Runners carrying lighted torches ran races between the altar raised to these gods in the outer Ceramicus, on the s. side of the Acropolis, and the latter point, which was the goal. The distance was about half a mile, and the object was to convey the lighted torch to the goal without permitting it to be extinguished. This was accomplished by means of different lines of runners, each of whom carried the torch in turn, passing it to his successor, the line whose torch first reached the goal still burning being considered victorious. The ceremony is supposed to have symbolized the theft of fire by Prometheus from the chariot of the sun. After the battle of Marathon it was introduced into the festivals of Pan. In the time of Socrates horses were used in these races.

LAMPÁSAS, a co. in central Texas, has for its w. boundary the Colorado river and a small branch. It is also drained by the Lampásas creek, a branch of the Leon river, and the little rivulets that run into it; 800 sq. m.; pop. '80, 5,421—5,354 of American birth, and 86 colored. The surface is uneven and thinly timbered. The soil is generally fertile, being adapted to the production of cotton, corn, wheat, rye, and oats. There is good pasturage; and horses, cattle, sheep, and swine are raised and exported. Value of home manufactures in '70, \$3,147, the product of 10 establishments. At Lampásas in the s. portion are medicinal springs. Number of farms in '70, 890; value of all live stock, \$103,556; valuation of real and personal estate in '70, \$288,120. Seat of justice, Lampásas.

LAMPRIS, a genus of fishes belonging to the family *scomberidæ* or mackerel family; body oval, greatly depressed, small deciduous scales; teeth wanting in adults, small mouth; a single elevated and elongated dorsal fin, sides of tail carinated, numerous pyloric cæca, and a large, posteriorly bifurcate air-bladder. See ОПАИ.

LAMP'SACUS, a city of Mysia in Asia Minor, on the Hellespont, near where it begins to open into the Propontis. The original name was Pityusa, from the number of pine trees which grew there. A colony of Ionians from Phocæa and Miletus settled there,

calling it Lampsacus from a Greek word denoting to *shine*, an oracle having directed them to settle on the spot where they first saw the light. It had an excellent harbor, and became a great commercial mart. During the Ionian revolt it passed into the power of the Persians, but on their overthrow at Mycale 479 B.C. it became the ally of Athens, to which it remained faithful until the Athenian disasters in Sicily, when it revolted. The Athenians, however, soon reducing it, held it until it was taken by Alexander the great. Afterwards it submitted to the Romans, under whom it flourished for a long time. Several distinguished men were natives of this city, among whom were Anaximenes the orator, Charon the historian, and Metrodorus the Epicurean philosopher. It was the chief seat of the worship of Priapus, who was said to have been born there of Aphrodite. A small town called Lainsaki occupies the site of the ancient Lampsacus, of which now no trace remains.

LAMP, SAFETY. See **SAFETY LAMP**, *ante*.

LAMPSON, Sir CURTIS MIRANDA, b. Vt., 1806; removed to England in 1830, and was naturalized in 1848. He devoted himself to mercantile pursuits in London, and acquired a fortune. In 1856 he was appointed a director in the first Atlantic cable company, became vice-chairman, and 10 years later was made a baronet on account of his valuable services to that enterprise. He was a friend of George Peabody, and was appointed one of the trustees of the Peabody fund. He is at present (1880) deputy governor of the Hudson's Bay company.

LAMSON, ALVAN, D.D., 1792-1864; b. Mass.; having pursued a preparatory course of study at Phillips academy, entered Harvard university, graduating in 1814, and in the same year accepted the position of tutor in Bowdoin college, Brunswick, Me. In 1818 he became the pastor of the First church in Dedham, Mass., after a 2 years' course of theological study at the Harvard divinity school, and remained in charge of that pastorate until 1858. In 1857 he published a carefully prepared volume of sermons, and was a frequent contributor to the *Christian Examiner*.

LAN'ARK, a co. in e. Ontario, Canada, drained by the Mississippi river (rising in Mississippi lake, in the eastern portion, and flowing n. 100 m. into the Ottawa river), by the Clyde, the Tay, navigable as far as the Rideau canal, and the river Rideau, a branch of the Ottawa. It is partially bounded on the s. by lake Rideau, and the Rideau canal, which passes through the lake, connecting the Ottawa river with lake Ontario, and the entire southern portion is dotted with picturesque little lakes. It is celebrated for its beautiful scenery; 1194 sq. m.; pop. '70, 33,020—3,220 of English birth or descent. It is traversed by the Brockville and Ottawa division of the Canada Central railway, the branch road from Smith's Falls to Perth, and the Carleton Place extension to Pembroke. It has extensive mineral deposits, saw and grist mills, and an important trade in lumber. Freestone is quarried, and leather, machinery, and furniture are manufactured. It is divided into two ridings. Capital, Perth.

LANCASTER, a co. in s.e. Nebraska, drained by Salt or Saline creek, and tributaries of the Missouri, Kansas, and Platte rivers. It is intersected by branches of the Union Pacific railroad, the Burlington and Missouri river, and the Atchison and Nebraska railroad; 864 sq. m.; pop. '80, 28,090—22,053 of American birth. The surface is uneven, with good pasture and fertile prairie land, thinly timbered and productive of grain; it is also adapted to stock-raising. It has salt-basins and salt-springs, and quarries of building-stone, carboniferous limestone, and cretaceous sandstone. Among the products are tobacco, wool, Irish potatoes, honey, flaxseed, and sorghum. Valuation of real and personal estate in '70, \$1,505,790. Value of farms in '70, \$2,136,053. It contained in '70, 969 farms. Value of all live stock in '70, \$374,029. Value of home manufactures, \$18,396. Seat of justice, Lincoln, the capital of the state.

LANCASTER, a co. in s.e. Penn., has for its w. boundary the Susquehanna river, and for the s.e. Octorara creek. The Conestoga creek crosses it from n.e. to s.w., and South mountain extends along the n.w. border. Mine ridge is in the s.e. It is traversed by the Columbia and Port Deposit division of the Pennsylvania railroad, and the Reading and Columbia railroad; 1050 sq. m.; pop. '80, 139,444—132,393 of American birth. Its mineral resources comprise iron, nickel, micaceous roofing-slate, blue limestone, and Potsdam sandstone; marble, chrome, and magnesia are also found. It had in '70, 17 mines of iron ore, employing 864 men and boys; 1 nickel mine, employing 48 men and boys; and 4 stone quarries, employing 43 men. The soil is a rich loam, of which lime forms a principal part, and is exceptionally fertile. The scenery is delightful, the surface of the country being diversified by low hills and broad green valleys. Its products are fruit, sorghum, corn, hops, honey, wheat, buckwheat, tobacco, barley, wool, flax, oats, and sweet potatoes. The yield of wheat in '70 was 2,077,363 bushels; of tobacco, 2,692,584 lbs.; of wine, 7,722 galls., and there was a large yield of dairy products. Cash value of farms in '70, \$70,724,908. Number of farms, 7,477. Value of live stock in '70, \$6,044,215. It has excellent water-power, and large manufactories of lumber, tin, copper, sheet-iron ware, and machinery; also cotton and woolen and paper factories, 12 breweries, and planing and saw mills. It has extensive forests of oak, hickory, chestnut, and ash. Valuation of real and personal estate, \$170,000,000. Seat of justice, Lancaster.

LANCASTER, a co. in South Carolina, has for its w. border the Catawba river and the state of North Carolina on the n. and n.w. It is bounded on the e. by Lynch's creek; 530 sq. m.; pop. '80, 16,903—16,885 of American birth, and 5,924 colored. The surface is undulating; in some portions densely wooded; in others the fertile soil produces cotton, tobacco, wool, wheat, fruit to some extent, oats, rye, and the best sweet potatoes; other products are Indian corn and grass, honey, sorghum, and sugar-cane. Gold is found near the Catawba river. It has one quartz mine employing 4 men; capital, \$45,000; annual product, 1500. Value of home manufactures in '70, \$452. Value of all live stock, principally cows, sheep, and swine, \$206,601. It contained in '70, 639 farms. It had 26 manufacturing establishments, employing 46 hands, with a capital of \$31,118, and an annual product of \$114,160. Valuation of real and personal estate in '70, \$2,012,810. Seat of justice, Lancaster Court-house.

LANCASTER, a co. in e. Virginia, has for its western border the Rappahannock, a navigable river, flowing s.e. past Windmill point into the Chesapeake bay, which is the s.e. boundary; 112 sq. m.; pop. '80, 6,160—6,150 of American birth, 3,157 colored. The surface is level, and equally divided into forest and plain. That portion of the soil under cultivation is adapted to fruit, corn, winter wheat, rye, wool, and sorghum; other products are sweet potatoes and oats. Value of all live stock, \$91,498. Horses and cattle are raised, and a larger number of swine. It has 16 manufacturing establishments, employing 51 hands, with a capital of \$20,190, and annual product of \$44,673. Seat of justice, Lancaster Court-house.

LANCASTER, a city in s.e. Ohio, on the Hocking river, near its source, 32 m. s.e. of Columbus, 21 m. n.e. of Circleville, 116 m. e.n.e. of Cincinnati, and 52 m. w.s.w. of Zanesville; pop. '70, 4,725. It is on the Hocking canal, and has the trade of a large and fertile section of country, where the vine is extensively cultivated, and is a central market for its produce. It is the junction of the Columbus and Hocking valley railroad and the Cincinnati and Muskingum valley railway. It has a pleasant and picturesque environment, and is a well-built town, with many elegant public buildings, a stone court-house costing \$150,000, 2 national banks, 6 hotels, 9 churches, excellent public schools; and the state reform school for boys, with a farm of 1400 acres, is 6 m. distant. It has 2 weekly newspapers. There are several manufactories; among them the machine shops of the Eagle machine company, and the Cincinnati and Muskingum valley railroad, planing mills, several flour and woolen mills, 2 breweries, and a large wine cellar, capable of holding 40,000 gallons.

LANCASTER (*ante*), a city of Pennsylvania, in the center of the limestone region, formerly the capital of the state. During the occupation of Philadelphia by the British, 1777-78, the Continental congress sat in Lancaster. The city is regularly laid out, and well built, principally of brick. Manufacturing industries are cotton, tobacco, and lager beer. Lancaster county is an important tobacco district, and the city manufactures many millions of cigars annually. There are 33 churches and chapels, the streets and houses are lighted by gas, and there is an excellent fire department. Pop. '80, 25,769.

LANCE, GEORGE, 1802-64; b. England; studied historical painting with Hayden, but left this branch of art on discovering, accidentally, his remarkable talent for the delineation of still-life. As a painter of fruit and flowers, both in composition and as a colorist, he was unequaled among the English oil-painters of his time. He was also a remarkably successful copyist, and restored, with great accuracy and fidelity to the manner of the master, a painting by Velasquez in the national gallery, London. His works exhibited at the royal academy and British institution exhibitions always attracted general attention. His *forte* lay in the wonderful brilliancy of his coloring, the exactness of his imitation, and the taste displayed in his grouping and arrangement of accessories.

LANCE, THE HOLY, the name applied in the Greek church to the knife with which the priest cuts the bread at communion. This knife is formed like a lance, designed to imitate the spear by which Christ was pierced.—2. A lance which was given to king Henry I. of Germany by Rudolph of Burgundy, and which is claimed by tradition to have been in large part made from the nails employed in Christ's crucifixion. Another narrative has it that this was the same lance employed by the Roman soldier. It became considered to be a powerful talisman, and was one of the most important insignia belonging to the German empire. In its honor, in 1354, pope Innocent VI. instituted a special festival, and it was used during the crusades to raise the spirits of the soldiers of the cross.

LANCELOT, Dom CLAUDE, 1615-95; b. Paris; was regent of the monastic schools of Port Royal, teacher of mathematics and Greek, and specially noted for the works on grammar which he contributed to the Port Royal publications. He was the teacher of Racine, the associate of Pascal, and, 1660-72, tutor to the princes de Conti. The latter part of his life was spent in seclusion, and devoted to prayer and meditation.

LANDER, a co. in n. Nevada, has Idaho for its n. boundary, and is drained by the head-waters of the Owyhee river, flowing n.w. into Oregon; also, centrally by the Reese river, and branches of the Humboldt river, which falls into Humboldt lake, in the next county; pop. '80, 3,624. The southern portion is extremely mountainous, with long

valleys, fertile in some instances, deep cañons, and thickly wooded vales. The Quartz mountains traverse it centrally, and silver is found imbedded in the quartz rock. The Central Pacific railroad follows the valley of the Humboldt river, crossing it in the southern portion, and a branch road extends in a southerly direction from Palisade to Eureka, called the Eureka and Palisade railroad. It comprises good grazing lands, on which considerable stock is raised; gold-bearing tracts in the n., and silver and lead near Reese river. Product of the shipment of bullion in '71, \$3,800,000. The agricultural districts produce wheat, oats, barley, wool, and Irish potatoes; the product of butter in '70 was 20,950 lbs. It has 9 silver quartz mines, employing 127 men; capital, \$1,919,100; annual product, \$394,558. Value of live stock in '70, \$211,980. It has 4 manufacturing establishments, employing 191 men, with a capital of \$657,500; annual product, \$1,136,577. Valuation of real and personal estate in '70, \$4,766,947.

LANDER, FREDERIC WEST, 1822-62; b. Mass.; received a military education at the Norwich, Vt., military academy, and devoted himself to railroad engineering. He superintended two of the early expeditions for the survey of the route for the Pacific railroad, both of which were arduous and dangerous, and of the latter of which he was the sole survivor. He joined the U. S. army in 1861, was appointed a brig.gen., and served with great credit, distinguishing himself as an able and daring officer. In Mar., 1862, he was stricken down by disease, and died at Paw Paw, Va. Gen. Lander married, in 1860, Jean Margaret Davenport.

LANDER, JEAN MARGARET DAVENPORT, b. Eng., 1829; entered upon the stage as a profession, and gained a high reputation in the United States as an actress of remarkable vigor and fine natural gifts, which had been cultivated to a point of rare excellence. In the character of *Camille* she was preferred by many even to Matilda Heron, the great American original in that part. She married gen. Lander in 1860, and on his death in 1862 she served as a hospital nurse, continuing in that duty until the close of the war. In 1865 she returned to the stage.

LANDER, LOUISA, b. Salem, Mass., 1835; exhibited, when quite young, a talent for modeling and sculpture; and at the age of 20 went to Rome and studied with Crawford. Besides busts of Hawthorne and others, she has produced a number of statuettes and statues in marble, which have been highly commended. Among her works are "Galatea," "Virginia Dare," and "Undine," statuettes; "Evangeline," "Ceres Mourning for Proserpine," and "A Sylph Alighting."

LANDIT, a fair or market, said to have been established by Charlemagne about 800, and which received its name from *Lundi* (Monday), the day of the week on which it began. The actual period of the *landit* included the week beginning with the first Monday after St. Barnabas day (June 11). It was at once a trade center and a religious and popular festival. It was held both in Paris and at St. Denis, and its opening was accompanied by an imposing ceremonial of a semi-religious character, conducted by the bishop and clergy, students and officials. The *landit* was abolished in 1789, and was succeeded by the modern fair as represented at Beaucaire. The word is also used in the French to signify a small present, such as may be purchased at a fair.

LANDLORD AND TENANT (*ante*). The relation of landlord and tenant may be inferred from the circumstances of the parties as well as created by express contract. The payment of rent is *prima facie*, but not conclusive evidence of such implied contract, and such contract will arise generally where one person occupies another's lands or tenements by the consent of the owner. We will consider, first, the rights and obligations of the landlord; secondly, the right and obligations of the tenant. These begin with the date of the lease, unless some other date has been fixed, or, in the absence of a written lease, with the tenant's entrance into possession.

The landlord has a right to receive the rent, to go upon the premises to collect rent, to prevent waste, and, upon notice given to the tenant, to see if waste has been committed. He can maintain an action only for injuries to the reversion, i.e., his estate remaining after the expiration of the lease. The landlord is under obligation to maintain the tenant in possession of the leased premises, i.e., to protect the tenant from being ousted by any person claiming under a title superior to that of the landlord, and not to disturb the tenant's occupation by any act of his own, as, for instance, the creation of a nuisance. The landlord is also charged with the obligation, in the absence of express provision to the contrary in the lease, of paying all taxes to which the premises are subject, and of discharging the interest upon such mortgage or mortgages as they may be incumbered with; and in case any liability of this sort which the landlord is chargeable with is satisfied by the tenant for his own protection, he is entitled to repayment by the landlord, or to withhold the rent to the extent of the liability so assumed. In limitation of the landlord's obligations, it should be said that he is not responsible where the tenant is dispossessed by a person who has no title, or where the tenant's interest is injured by the acts of third persons. Nor is the landlord liable to make repairs, or for expenses incurred by the tenant in making repairs, or to restore the buildings upon the premises when they have been burned down.

The tenant is under obligation to pay rent, and, if he have stipulated to pay a fixed sum for a certain term, he is not excused by the destruction of the premises, or by any

injury to his interest otherwise than by act of the landlord. The tenant must restore the premises to the landlord at the expiration of the tenancy in as good order as he received them, with allowance for necessary wear and tear. He is liable only for ordinary repairs, such as of fences, doors, windows, etc. The rights and liabilities of a tenant in possession are the same, substantially, as against third persons, as if he were actual owner. A tenancy may be dissolved by the surrender of the lease to the landlord by the tenant, or forfeiture of the lease by a breach of a covenant contained in it, such as the covenant to pay rent, not to commit waste, etc.; in case of a tenancy for life or for years, it is dissolved by the expiration of the term for which it was limited, without giving notice to quit. But such notice, in writing, must be given to a tenant who holds from year to year or at will. At common law six months' notice was required, but in most of the United States much less time is allowed.

Upon the expiration of the tenancy the landlord has a right to re-enter upon the premises, and, in case of the tenant's holding over, may recover possession by the old common-law action of ejectment, which in this country has been largely superseded by summary proceedings under the statutes of the different states. A lease may be either verbal or by deed under seal. By the statute of frauds a lease for a term of over three years must be in writing, and in some states a verbal lease is good for only one year. Any person not under legal disability may make a valid lease, provided the lessor at the time of making the lease have possession of the premises demised. When the landlord permits the tenant to remain upon the premises after the expiration of the term, a tenancy at will is created, which will be terminated by the landlord's taking rent from another party, or by some act by the landlord and other parties indicating that the relation of landlord and tenant exists between them.

LANDSCAPE GARDENING (*ante*). The word landscape implies a considerable range of perspective over nature, embracing gradations from a foreground to a middle and a far distance. A piece of decorated ground, or park, which has not such a view cannot be considered a landscape garden. There is an obvious impropriety in the conjunction of the words landscape and garden, in their use when we mean simply the English or natural style in *decorative gardening*. The latter words cover the whole field, and should be substituted for landscape gardening. To garden, to lay out and plant, and make or mold such an extent of view as to create grand or extensive landscapes, is preposterous. As well seek to make artificial skies or oceans. Great and beautiful landscapes are without the pale of gardening arts; but decorative gardening may aid in producing charming bits of perspective in vegetation, made more pictorial by artful adaptations of the various elements of beauty which the garden artist may have means to employ, and thus make exquisite miniature or condensed landscapes. The term decorative gardening, however, even in that case, is by far the truer name to apply to the art. As used in England, the term landscape-gardening refers to the natural and graceful, in contradistinction to the formal and geometric, styles of gardening. The English, having originated and carried the former style to a perfection never before attained, the word landscape, which attached to that variety of decorated grounds, has served to mislead people into the idea that a good imitation of a piece of primitive nature is a refined piece of "landscape gardening." The charm of primitive nature is the absence of all evidence of art. The charm of decorative gardening is in the variety and perfection of the art employed in improving, arranging, and setting pliant vegetation: so that the beautiful foliage and bloom of its summer growth shall be exhibited to the greatest perfection from the walls or roads made to traverse the ground; so as to make the most charming setting for the architecture and sculpture that may be needed for the comfort or delight of those who are to use the place, or to make a lovely foreground for a distant view. All the hints which a living observer of natural scenery may receive from a close observation of the effects produced, the play of light and shade and color, by the varied juxtapositions of ground surfaces, trees, grass, roads, and water, to enable him to reproduce on a limited scale the most pleasing effects he may see, and to avoid those features in the primitive picture which do not contribute to its pleasing effect—all these hints from nature constitute the elements of *landscape gardening*. But in order to be an art it must be associated with the evidence of human effort. A lovely bit of wild landscape, if it have but a path to a summer-house, or any other evidence that its beauty is dedicated to use as beauty, becomes a bit of landscape art by such evidence of its appropriation. And the added features of art, as paths, walks, flowers, and lawn, that will heighten the beauty and the interest of that pretty scene, without marring its harmony, constitute the gardening art. As wealth and taste increase, the art naturally tends to great use of architectural accompaniments; as decorated steps, terraces, pavilions, garden-houses, vases, fountains, bridges, etc., until the constructive arts are the principal, and nature's growths only *their* decoration. Then, it is architectural gardening; none the less decorative, but certainly not landscape gardening. The formal park at Versailles, with its monotony of geometric angles, its breadth of barren gravel, its wealth of architectural and sculptural decorations, is a type of architectural and formal gardening on a great park scale. Roman and Italian villa gardens for 2,000 years have been examples of the more domestic forms of architectural gardening. Compared with the simple use of nature's materials in the English or "natural" style, the former are

vastly more expensive. The latter is, therefore, to be recommended, for the reason that at limited cost very charming effects may be produced with grass, trees, and flowers alone; and it is far better to succeed perfectly with the use of these only, than to attempt a style beyond most men's reach. But when both taste and the means to gratify it are joined, much higher examples of decorative gardening may be produced by working after the Italian school.

The public parks of the United States (see Parks) now exhibit some of the best models of landscape gardening on a great scale. The cemeteries of nearly all American cities are also designed to produce pleasing effects in landscape gardening; and as far as such effects can be produced where numberless monumental tributes to the dead must necessarily be conspicuous features of the scene, they are the most beautiful art works of their kind in the world. In private grounds the development of taste in the United States, in what is called landscape gardening; but should be called decorative gardening merely, has been rapid; and although architectural gardening has received little of the study which its capabilities invite, the lovely surroundings of grass, trees, and flowers of American homes marks an advanced taste in the arts of gardening. The principal American works on this subject are A. J. Downing's "Treatise on Landscape Gardening," published 30 years ago, and a work by Weidemyer on decorative gardening on a scale adapted to suburban homes, F. J. Scott's treatise entitled "The Art of Beautifying Home Grounds." London's "Encyclopedia of Gardening" (English) is by far the most complete work of the kind extant; of greatest value to those who may intend to practice landscape gardening as a profession, but more particularly adapted to England.

LANDSEER, CHARLES, 1799-1879; b. England; elder brother of sir Edwin. Received his first instructions in art from his father, and from the celebrated historical painter, B. R. Haydon, and entered the school of the royal academy in 1816. Four years later he accompanied lord Stuart de Rothsay on a mission to Brazil, where he made a large number of drawings and sketches for Don Pedro I. He made his first exhibition at the royal academy in 1829; in 1837 was elected an associate; and in 1845 an academician. In 1851 he became keeper of the academy, and held that office until 1873, when he retired with a pension of the amount of his salary. Among his paintings, the most important are "Pillaging of a Jew's House;" "The Temptation of Andrew Marvell;" "The Departure of Charles II. from Bentley;" and "The Eve of the Battle of Edgehill." One of his paintings found a place in the Vernon gallery, and others gained art union prizes.

LANDSEER, JOHN, 1789-1852, b. Lincoln, Eng.; now best known as the father of sir Edwin Landseer, whose paintings he was first to engrave and make widely known. At 24 he had executed some admirable plates. In 1806 he opened a school of engraving, became an associate of the royal academy the year after, and devoted much time to archæology. Among his engravings are the plates in Bower's History of England; in sir Thomas Moore's Views in Scotland; a portrait of Nelson; "Saint John" after Benj. West; "The Rat on Watch;" "The Dogs of Mt. St. Bernard," after a painting by Edwin; and plates for the Stafford gallery, an elaborate quarto in 4 vols., 1818. He is author of a descriptive catalogue of the early pictures of the national academy in London, which abounds in lively narratives and humor; of a memoir on the sculptured stones from Babylon in vol. xviii of the *Archæologica*; and of Sabian Researches.

LANDSEER, THOMAS, 1800-66, b. London; older brother of sir Edwin, and engaged most of his life engraving on steel from the latter's superb animal pictures. His engravings are remarkable reproductions, often full-sized copies, of the original paintings; and give the life, spirit, and atmosphere of the paintings of sir Edwin as really as the paintings themselves. Among his other works is the engraving of Rosa Bonheur's "Marché aux Cheveaux." The French national library contains an album of his designs and sketches, which indicate high talent. He was author of the *Life and Letters* of William Bewick.

LANDSFELDT, COUNTESS OF. See LOLA MONTEZ.

LANDSHUT, or LANDESHUT, a t. about 50 m. from Breslau, in Silesia, Prussia; pop. '71, 5,673. An important linen trade is carried on by the inhabitants, but the place is not otherwise remarkable in a commercial sense. Here was fought in 1760 an important battle between the Prussians, and the Austrians under gen. Laudon, in which the latter were successful.

LANDSTAD, MAGNUS BROSTRUP, 1802-80; a priest in the national church of Norway, and distinguished for his contributions to the literature of his country. He has been regarded as one of the twelve great Norwegian poets of this century. He published a hymn-book, which in 1869 was authorized to be used in the public religious services, and is now used in nearly every parish in Norway. In 1853 he published his Norwegian ballads, which, with notes, fill more than 900 octavo pages.

LANDSTURM. See LANDWEHR, *ante*.

LANE, a co. in w. Kansas, formed of extensive prairies and watered by Walnut creek, North Fork, and South Fork, affluents of the Arkansas river; 650 sq. miles. Pop. '80, 633.

LANE, a co. in w. Oregon, having for its n. boundary a branch of the Willamette river, called McKenzie's Fork; the Cascade range of mountains for its e. border, and the Calapooya mountains extending along the s. boundary line to where the Sinslaw river rises and flows w. to the Pacific ocean, which forms its w. boundary; 3,550 s.qm.; pop. '80, 9,411. The Willamette valley formed by the river of that name lies along the e. section for 200 m., and is from 20 to 30 m. wide; for two-thirds of the year the river is navigable by steamboats as far as Eugene City, 200 m. from its mouth. The surface is uneven, varied by hills, valleys, and dense forests of fir and pine. The scenery is magnificent. It embraces three peaks of the Cascade range, Mt. Hood, 11,934 ft. above the level of the sea, Mt. Jefferson, and Mt. Pitt. Igneous rocks are found in the mountainous district; but in the valleys the soil is very fertile, and productive of grain, honey, and tobacco. Product of butter in '70, 155,214 lbs. A large number of sheep and swine are raised, the country furnishing good grazing pastures, and wool is a staple product. Value of all live stock in '70, \$666,521; cash value of farms in '70, \$2,499,297. It has one flour-mill and three saw-mills. Value of home manufactures, \$1390. It has 47 manufacturing establishments employing 111 hands; capital, \$116,325; annual product, \$164,239. It is intersected longitudinally by the Oregon and California railroad. Value of real and personal estate in '70, \$2,100,000. Seat of justice, Eugene City.

LANE, EDWARD WILLIAM, PH.D., 1801-76; b. England; prepared for the church, but visited Egypt in 1825, and continued to travel and reside in that country till 1842. Having devoted himself to the study of the manners and customs of the Egyptians, he published a popular work on that subject in 1836; and, five years later, a new translation of the *Arabian Nights*, 1841. Other works from his pen are *Selections from the Kur-an*, 1843; and *Arabian Tales and Anecdotes*, 1845. He labored for many years at the compilation of an Arabic-English dictionary, which is still incomplete (1880), though six parts of it have been published. He left behind him at his death, in 1876, the manuscript complete for the seventh and eighth volumes of his great work. Mr. Lane's fluency in the Arabic language was extraordinary, and his acquaintance with the customs of the Arabs gave him facilities for acquiring knowledge which no other English writer has possessed.

LANE, JAMES HENRY, 1814-66; b. Lawrenceburg, Ind.; educated for the legal profession, and admitted to the bar. On the outbreak of the Mexican war he volunteered as a private in the 3d Ind. regiment, became its col., and at Buena Vista, where he was in command of a brigade, distinguished himself by his gallantry. Returning to Indiana in 1848, he was elected lieut. gov., and in 1853 a member of congress. He voted for the repeal of the Missouri compromise, and on the breaking out of the Kansas political troubles, removed to that state, and was a prominent member and chairman of the executive committee of the Topeka convention. He was made president of the Leavenworth constitutional convention of 1857, and on the outbreak of actual hostilities between the "free-state" and "border-ruffian" elements, so-called, was put in chief command of the former. Being elected U. S. senator by the Topeka legislature, his election was held by congress to be invalid, and he was indicted for high-treason. He became senator, however, in 1861, and the same year entered the volunteer service, was named brig. gen., and being in command of a Kansas brigade, defeated the confederates in several battles. He was in Lawrence, Kan., at the time of the Quantrell massacre, and narrowly escaped with his life. He retained his seat in the senate during the war, and in 1865 was re-elected. But in the following year he was attacked with paralysis, and during temporary aberration of mind, committed suicide.

LANE, JOSEPH, b. N. C., 1801; removed to Indiana when 14 years old, and was a clerk in a store. He interested himself in local politics, and was several times elected to the state legislature. He fought in the Mexican war with distinction, was col. 2d Ind. vols., promoted to brigadier and brevet maj. gen. for gallantry, and was wounded at Buena Vista. In 1848 he was appointed governor of Oregon territory, and was sent from there delegate to congress in 1851, and to the U. S. senate in 1859. In 1860 he was nominated for vice-president on the ticket with John C. Breckenridge, by the democratic convention at Baltimore.

LANFRANCO, GIOVANNI, 1581-1647; b. Parma, Italy; exhibited a remarkable aptitude for painting while serving as a domestic, and was placed by his employer, count Orazio Scotti, with Carrache, and afterwards sent to Florence, Venice, and Boulogne, for study. He was called to assist Carrache in the frescos of the Farnese palace. He was a remarkably rapid painter, of fertile imagination, and overflowing with energy and originality. The cities of Italy abound with his works, of which the most remarkable are the cupola frescos, that of "St. Andrea della Valle" in Rome being one of the most noted. In the Louvre at Paris are his "Crowning of the Virgin," "Hagar in the Desert," "The Separation of St. Peter and St. Paul," and "St. Peter Praying;" in the London national gallery, "St. Peter and Judas," and others. The galleries of Dresden, Munich, Vienna, and Berlin all have some of his works.

LANFREY, PIERRE, 1828-77; b. Savoy; was educated at a Jesuit college at Charabéry, and at the collège Bourbon, Paris, and studied jurisprudence. He entered upon the profession of authorship by publishing, in 1857, *L'Église et les Philosophes du 18^{me}*

Siècle, which attracted general attention. This was followed, in 1860, by his *Histoire Politique des Papes*; and three years later by *Le Rétablissement de la Pologne*. But his great work was his political and social study of the empire, published under the title *Histoire de Napoléon 1^{er}* (6 vols., Paris, 1867-74). Lanfrey fought with the *garde mobile* in the Franco-German war. In 1871 he was elected a member of the assembly from Marseilles, and shortly after appointed by president Thiers ambassador to Switzerland. In 1873, on the election of MacMahon, he resigned this position, and in 1875 was elected a life-senator. In politics he was bitterly opposed to Gambetta, and acted with the moderate left.

LANG, LOUIS, b. at Waldsee, Württemberg, Mar. 29, 1814; at an early age showed great skill in painting likenesses in pastel, executing many such portraits during a residence of four years on lake Constance. He was in Paris from 1834 to 1837, and came to the United States in 1838; went to Italy in 1841, studying at Venice, Bologna, Florence, and Rome; returned to New York in 1845, and spent two years in the decoration of interiors and in modeling figures in plaster; went to Rome again in 1847, and returned to New York in 1849.

LANGBAINE, GERARD, 1656-92; b. Oxford; received a university education, but led a reckless and wild life, finally devoting himself to the collection of plays and the preparation of catalogues of them, in which he showed considerable bibliographical accuracy. These catalogues were published between 1687 and 1719, and are still held in some esteem for the information which they afford concerning the early English drama.

LANGDELL, CHRISTOPHER COLUMBUS; b. N. H., 1826; was educated at Phillips Exeter academy and Harvard. He studied law at the Harvard law school, and took the degree of LL.B. After practicing law for a time at the New York bar, he was made Dane professor of law at Cambridge, and in 1870 dean of the law faculty. He has compiled several volumes of cases and pleadings, including *Select Cases on Contracts*; *Select Cases on the Law of Sales*; and *Summary of Equity Pleading*.

LANGDON, JOHN, LL.D., 1739-1819; b. N. H.; received a common-school education, and pursued a mercantile career until the outbreak of the revolution, when he devoted his time and his accumulated wealth to the patriotic cause. He was a delegate to congress in 1775, and speaker of the assembly of New Hampshire the following year. After advancing a large sum for the sustenance of a regiment which had been formed, he furnished the means with which was raised the brigade which gen. Stark commanded in his victory at Bennington, during which engagement Langdon commanded a company. In 1783 he was again chosen a delegate to congress; in 1788 he was governor of New Hampshire; and from 1789 almost continuously until 1811, a U. S. senator.

LANGDON, SAMUEL, D.D., 1723-97; b. Boston, Mass.; was educated at Harvard university, and taught a grammar-school in Portsmouth, N. H. He attended the expedition against Louisburg in 1745 as chaplain, and in 1747 settled in Portsmouth, where he remained as pastor of the First church (Congregational), until 1774, when he became president of Harvard university. He continued to hold this position until 1780, and was still later a minister at Hampton Falls, N. H. Dr. Langdon received his degree of D.D. from the university of Aberdeen, Scotland. He held a high position and exercised profound influence in public affairs, and was a prominent member of the New Hampshire convention which adopted the federal constitution.

LANGDON, WOODBURY, 1739-1805; b. N. H.; was a member of congress 1779-80, a judge of the supreme court of New Hampshire 1782 and 1786-90, and councilor 1781-84.

LANGE, JOHANN PETER, D.D., b. Prussia, 1802; was in a great measure self-educated, but studied at the gymnasium of Düsseldorf, and afterwards theology at Bonn, where he was appointed professor of theology in 1854. His writings are highly esteemed among theologians, his *Theologisch-homiletische Bibelwerk* in particular, a very full, critical, exegetical, doctrinal, and homiletic commentary on the Bible, prepared under his supervision, and translated and published in the United States under the general editorship of Dr. Philip Schaff, under the title *Lange's Commentary*. This great work has been received in this country as a welcome addition to the apparatus for biblical study. His other works are: *Leben Jesu*; *Christliche Dogmatik*; and *Apostolische Zeitalter*.

LANGERON, ANDRAULT, Comte de, 1763-1831; b. Paris; appears to have been a soldier of fortune, who did not even hesitate to fight against his own country. He was a subordinate officer in the French contingent during the latter part of the American revolutionary war, and rose to the rank of col. The French revolution expatriated him, and in 1790-91 he was in the Russian service, fighting in the wars with Sweden and Turkey. When the Austrians invaded France and Holland in 1792-94, he served with them, but was again in the Russian employ in 1799, and at Austerlitz was a gen. of division in that service. He fought against Napoleon I. when the latter made his disastrous invasion of Russia, and also in the battle of Leipsic. In 1822 he was appointed governor-general of New Russia. His last military service was in the Turkish war of 1828-29. Died in St. Petersburg.

LANGDEVIN, HECTOR LOUIS, b. Quebec, 1820, where he was educated, and having studied law at Montreal, commenced practice at the bar in 1850. He edited several papers, published in the French language in Montreal and Quebec; was mayor of Quebec, 1857-59; member of the provincial parliament in 1858; solicitor-general for lower Canada in 1864; and postmaster-general in 1866. He was one of the commissioners sent to London to organize the confederation of the British North American provinces in 1866, and in 1867 entered the Dominion cabinet. In 1875 he represented Dorchester, Quebec, in the house of commons, and in 1879 was postmaster-general.

LANGHAM, SIMON DE, Cardinal, d. 1376; was a monk in Westminster in 1335, and became subsequently prior and abbot. In 1360 he was lord high treasurer of England; two years later, bishop of Ely; and in 1366, archbishop of Canterbury. He dismissed Wycliffe from the wardenship of Balliol college, Oxford, thus coming in conflict with Edward III.; and having been made by pope Urban V. a cardinal-presbyter, he was driven from his archbishopric, and forced to retire to Avignon. Here he occupied a confidential position with regard to pope Gregory XI. until his death.

LANGHORNE, JOHN, D.D., 1735-79; b. Kirkby-Steven, Westmoreland. After studying at Winton and Appleby, he devoted himself to private teaching; took orders; went to Cambridge; was private tutor in the family of a Lincolnshire gentleman, to whose daughter he became attached. His suit was rejected, and he went to London, became curate of St. John's, Clerkenwell, and wrote for the periodicals. A short poem in 1765, entitled *Genius and Valor*, defending the Scottish nation against the invective of Churchill's *Prophecy of Famine*, obtained for him the degree of D.D. from the university of Edinburgh. In 1767 he married the lady who had before rejected him. Her wealthy friends purchased for him the living of Blagden, in Somersetshire, but she died in less than a year after their marriage. Retiring to Folkestone, in Kent, where his brother was curate, he began with his brother's assistance the translation of *Plutarch*, which was published in 1771, and was well received. In 1772 he again married, but his wife died in four years. He was a voluminous writer. Besides his translation of *Plutarch's Lives*, his principal works were: *Letters on Religious Retirement*; *Poetical Works*, 2 vols.; and 2 vols. of sermons. He wrote also for the *Monthly Review*.

LANGLAND, or LANGLEY, WILLIAM. See PIERS PLOWMAN, *ante*.

LANGLES, LOUIS MATHIEU, 1763-1824; b. France; devoted himself to oriental studies, and in 1787 translated Tamerlane's *Institutes* from the Persian. Two years later he edited the Mantchoo-French dictionary of father Amiot, and in 1795 was appointed administrator and professor of the Persian language in the new school of oriental languages founded by the French government. He was the founder of the geographical society of Paris, and wrote a number of important works on the eastern languages and literature.

LANGLOIS, VICTOR, 1829-69; b. France; traveled in Asia Minor and Armenia, in western Asia, in 1852-53, making excavations and collecting ancient coins, medals, and inscriptions. At Tarsus, in Cilicia, the birthplace of St. Paul, of the stoic Antipater, and the philosopher Athenodorus, anciently the seat of a celebrated school of philosophy, he found in the cemetery some figures in terra-cotta, which were afterwards exhibited in Paris. He was happy in his discoveries of Greek inscriptions, which numbered over 80. He published, in 1858, *Numismatique de l'Arménie*. Previous to 1861 he went to Italy, adding to his investigations in relation to Armenia in the time of the crusade, a collection of data for an important work on the doctrines of the Mechitarists, the most celebrated of the Armenian monks; visiting San Lazaro, an Armenian convent, a center of Armenian literature, on an island near the city of Venice. The work appeared in 1862. In 1867 he published *Le Mont Athos et ses Monastères*, with a lithographic copy of the Greek manuscript of the geography of Ptolemy, 17th c., which he found in the libraries of the monasteries of Mt. Athos, in Turkey, the seat of the first and most celebrated theological seminary of the Greek church. It is the Monte Santo of to-day, where upwards of 6,000 monks and hermits living in monasteries, grottoes, and caves, in complete seclusion from the world, religiously preserve the ancient MSS. that they were formerly occupied in transcribing. As the result of his researches among these treasures of Greek literature, the first volume of his *Collection des Historiens Anciens et Modernes de l'Arménie*, a translation from the Armenian, was produced in 1868; its completion was prevented by his death.

LANGSTON, JOHN MERCER, LL.D., b. in slavery at Louisa Court-house, Louisa co., Va., 1829. He was emancipated at 6 years of age, and, having subsequently fitted himself for college, entered Oberlin, where he graduated in 1849. He then entered the theological school of the same institution, whence he graduated in 1853. Having studied law, he was admitted to the bar in 1854; and after a practice of 13 years in the legal profession in Ohio, he accepted a professorship of law in Howard university, Washington, D. C. After a time he was appointed dean of the faculty, and in 1873 became vice-president and acting president of the institution. In 1871 he was appointed by president Grant a member of the board of health of the District of Columbia, of which in 1875 he was elected secretary. In 1877 he was appointed by president Hayes minister to Hayti, a post at which he still (1880) remains. He is the author of various addresses and papers

upon literary, scientific, and political subjects, and as a public speaker has established a high reputation.

LANGTOFT, PETER, b. 13th c.; was a canon-regular of the order of St. Austin at Bridlington in Yorkshire, England. He was the translator into French of Herbert Bosenham or Boscam's *Life of Thomas à Becket*; and also compiled in French verse a *Chronicle of England*, manuscripts of which are preserved in the Cottonian collection, and among the Arundel MSS. in the Heralds' college in England. His works were translated into English in a metrical version by Robert de Brunne, and published by Hearne in Oxford, 1725.

LANGUAGE, DISEASE OF THE FACULTY OF. See LOGOMANIA, *ante*.

LANGUAGE OF FLOWERS. See FLOWERS, LANGUAGE OF.

LANJUINAIS, JEAN DENIS, Comte de, 1753-1827; b. Rennes, France; named by the Parisians "iron head and lion heart." He made an early success at the bar of Rennes; in 1775 became professor of ecclesiastical law and wrote treatises on the canonical legislation of France. In 1789 he was deputy from Rennes to the states-general, which soon after became the revolutionary national assembly. He entered with ardor into the reforms inaugurated by that body to lift the common people and to destroy the special privileges of classes, but his opinions did not go much beyond a constitutional monarchy similar to that of England, to which idea he maintained a theoretical adherence, though in the stormy history in which he took part he combated nearly every separate feature of the English system. He pronounced with energy against the French nobility as useless parasites, nuisances to society, and demanded the suppression of all feudal rights and privileges. He helped to start the *Club Bréton*, which afterwards became the Jacobin club. Early in the assembly he demanded that the impertinent formulas—*je veux, et j'ordonne*—which Louis XVI. had continued to use in his messages to the assembly, should be discontinued. He was a member of the committee on ecclesiastical legislation, and was always considered a stout adherent of the Christian faith of the Jansenist shade. He supported the tithe to king and church as a divine right, and protested energetically against the seizure of the property of the clergy, yet denounced the nobility of Bretagne, Dauphiné, and Languedoc for their opposition to liberty, which "liberty" was then proceeding to confiscate their estates. He opposed and defeated Mirabeau's motion to give the ministers a consultative voice in the assembly. On June 16, 1790, Lanjuinais demanded the abolition of all titles; in May, 1791, the admission of colored men to all the rights of citizenship; in Aug. that the king and prince should not continue to assume their titles, nor wear the insignia of rank. During that memorable session of the national assembly he took an energetic part in all its reformatory legislation, contributing especially to that affecting ecclesiastical establishments, and cherished the illusion that the church might be brought back to the early democracy of its faith and doctrines and become a coadjutor in national reforms. Lanjuinais was returned a member of the legislative assembly which succeeded the national assembly Oct. 1, 1791; but the radical reform movement of which he had been a leader was now getting beyond his convictions, which gave the color of reaction to his part in the new assembly. The monarchy, crushed by his aid, he seemed to wish preserved. Energetic, brave, and obstinate, he attempted with curious contradictions of opinions to make head against the logic of events which was leading to a democratic republic. He joined with the eloquent Louvet and Barbaroux to denounce and oppose Robespierre, but sustained the motion to exile the Orleans family. He rose with courageous vehemence against the act of accusation of the king, against the right of the assembly to judge him, and against the forms employed, yet at last voted the king guilty under the accusation. He then voted for his banishment as the last means to save his life. In Feb., 1783, in the climax of Robespierre's power, he supported the decree against the participants in the massacre of the previous Sept., combated the establishment of a revolutionary tribunal, attacked the commune of Paris, and faced the orators of the Jacobins in the assembly in the fiercest parliamentary battles of the memorable session which brought the Girondists to the guillotine. Often in personal danger, he clung to the tribune by main force, faced all, answered all, and yielded nothing. When the brutal Legendre, who was by trade a butcher, threatened to hurl him from the tribune, he retorted—"Yes, obtain a decree that I am an ox, that you may club me." He was placed under arrest by the Jacobins, but escaped and concealed himself until the fall of Robespierre. He was returned to the assembly in 1795, renewed the battle against the Jacobins, aided to remove the disabilities of exiled priests and émigrés, and took part in the formation of the new constitution. During the prolonged despotism of Napoleon, Lanjuinais took a subordinate part in politics; but he had little sympathy with the reactionary policy of the Bourbon restorations which followed. All these years till his death in Paris, he was unceasingly industrious in literary work, mostly on pamphlets, covering a wide range of subjects, legal, legislative, and historic.

LANKESTER, EDWIN, LL.D., 1814-74; b. England; was educated at University college, London, and at Heidelberg, for the profession of medicine. He held official positions in a number of English medical societies, and gained reputation as a lecturer and author. He devoted himself to investigations in hygiene and social science, and to studies in natural history and in other directions with a view to perfecting himself in

these departments. He was one of the editors of the *Quarterly Journal of Microscopical Science*.

LANKESTER, EDWIN RAY, b. London, 1847; son of Dr. Edwin; educated at St. Paul's school, London, and Christ Church, Oxford. In 1872 he was appointed to a fellowship of Exeter college, Oxford; and two years later professor of zoology and comparative anatomy in University college, London. He is the author of a large number of papers on scientific subjects, chiefly comparative anatomy and paleontology, contributed to the *Philos. Trans.* royal society, and other publications. He became chief editor of the *Quarterly Journal of Microscopical Science* in 1869.

LANMAN, CHARLES, b. Mich., 1819, son of Charles James; was educated at an academy, and was for ten years, 1835-45, in a business situation in New York. He adopted the profession of journalism, and was employed on leading newspapers in New York, Washington, and Cincinnati, and also as correspondent of the *Illustrated London News* and *London Athenaeum*. He settled in Washington, and held at different times the positions of librarian to the war department, librarian of copyrights in the state department, and librarian of the house of representatives and of the interior department, besides being private secretary to Daniel Webster. In 1871 he was made American secretary of the Japanese legation, a position which he still retains (1880). Mr. Lanman has published *Adventures in the Wilds of America*; *Private Life of Daniel Webster*; *Essays for Summer Hours*; the *Japanese in America*; and a number of other works.

LANMAN, CHARLES JAMES, 1795-1870, b. Conn.; after passing through Yale, studied law and was admitted to practice. He removed to Michigan among the earliest settlers in that state, and was held in high esteem for his liberality and public spirit. In 1835 he returned to Norwich, Conn., which was his birthplace, and was mayor of that city in 1838. He continued to reside there until 1862, when he removed to New London, where he died.

LANMAN, JOSEPH, Rear-admiral, 1811-1874; b. Conn.; joined the navy as a midshipman when fourteen years of age, and was promoted through the different grades to rear-admiral (1867). During the two attacks on fort Fisher (1865) he commanded the second division of admiral Porter's squadron, and led the attack with the flag-ship *Minnesota*. For this service he was highly commended in Porter's official report. From 1869-71 admiral Lanman commanded the s. Atlantic squadron on the coast of Brazil.

LA NOUE, FRANÇOIS DE, called BRAS DE FER (arm of iron), 1531-91; of an illustrious family in Bretagne; became a conspicuous defender of the Protestants of France. When Henry IV. heard of his death he made this memorable compliment to his memory: "He was a great warrior, and still greater in goodness. One cannot but regret that to gain a little fortress one should lose such a captain—worth more than a whole province." Educated in arms, La Noue was placed at the court of Henry II. at the age of 18, where he evinced more respect for learning than for military exercises, and set to improving the system of court training. He became a Protestant through the influence of d'Audélot, and after the massacre of Vassy joined the great Condé; was in the battle of Dreux, where Condé was made prisoner, and assisted Coligny in conducting a retreat. He was afterwards under Condé, and gained that reputation for bravery, prudence, and humanity combined, which led even the Roman Catholics of that time to give him the name of *the Protestant Bayard*. In 1570 he lost his left arm in battle and had its place filled with an iron one—hence his sobriquet. In 1570, when peace between the Romanists and Protestants was declared, La Noue was about to offer his services to Charles IX. when the latter broke the treaty and again massacred Protestants, and the former escaped into Spain. The king sent for him to negotiate with the Protestant insurgents of Rochelle, whose distrust of the treacherous court made his mission futile, though he succeeded in preventing further bloodshed at that time. They afterwards fought under him in the service of the king of Navarre, resisting the persecutions of the French king. In 1580 he was made captive by Philip II. of Spain, and remained for five years in prison, where he composed his *Discours politiques et militaires*, which was translated into several languages, and placed him in the rank of great writers and statesmen. Philip II., during his captivity, kindly offered him freedom if he would consent to have his eyes put out so that he could not again serve against Spain. In 1586 he aided to defend Geneva against the duke of Savoy. Later, Henry III. of France permitted him to return to his own country. He immediately resumed command in the French army, and his military services were as brilliant and energetic in youth. Died at the siege of Lamballe.

LANOUE, JEANNE DE, 1666-1736; b. France. After a youth noted for cold penuriousness she changed suddenly to a life of active beneficence, helpful to the poor and the sick, giving her own means and soliciting from others to provide for them. Losing her estate, she continued to dedicate her life to the work begun, and in spite of the coldness of certain religious orders towards her, who even refused their stable for shelter for her sick, she succeeded in founding a permanent society of young ladies for the work, with a peculiar vestment, who have since been known as sisters of Providence. *L'Ordre de la Providence* is now one of the established beneficences of the Roman Catholic church, though in its origin it received only opposition from it.

LANSDOWNE, WILLIAM PETTY, Marquis of. See SHELBURNE, EARL OF, *ante*.

LANSING (*ante*), a city in s. Michigan, the capital of the state; incorporated as a city in 1859; the junction of the Detroit, Lansing and Northern railroad, the Northwestern Grand Trunk, the Jackson, Lansing and Saginaw railroad, and the n. Lansing branch of the Lake Shore and Michigan Southern railroad; pop. '74, 7,442. It is the center of a populous district, surrounded by a region of great fertility, which with the coal and lumber in the immediate vicinity forms the stimulus of an ever-increasing trade. The rivers Grand and Cedar supply water-power and additional means of transportation. Among the manufactures are sashes, doors, and blinds, wheels, barrels, agricultural implements, sewing-machines, and steam-engines. Its educational advantages are superior, both in the number and systematic grading of the public schools, and the rare opportunity for culture afforded by the libraries. It contains the state library of 40,000 vols., 2 national banks with a capital of \$175,000, an insurance company with a capital of \$100,000, an opera-house, a young men's literary association, and an odd fellows' institute for the education of the orphans of members of that order, established in 1871. It has also the Michigan Homeopathic college, open to both sexes, having a library of 1500 vols. It is 37 m. n. of Jackson, 208 m. e.n.e. of Chicago, and 72 m. e.s.e. of Grand Rapids. It is situated on high bluffs divided by the Grand river, which is spanned by a wooden bridge and 4 iron ones. It is a well-built town, with avenues 5 rods and sometimes 7 rods in width. In the southern portion, near the mouth of the Cedar river, is a celebrated mineral spring.

LANSING, JOHN, 1754-1829; b. N. Y.; studied law, but during the beginning of the revolutionary war was gen. Schuyler's military secretary. He served seven years in the legislature of New York, was mayor of Albany four years; a member of the congress of 1784-88, and of the state convention on the constitution of the United States. He was judge of the supreme court in 1790, chief-justice 1798, and chancellor of the state 1801-14.

LANSINGBURGH, a village in Rensselaer co., N. Y., 3 m. from Troy, pop. 6,372; has thriving manufactures, particularly of crackers, oil-cloth, and brushes; and still publishes the *Gazette*, founded in 1798, almost the oldest existing newspaper in the state. Received its name from Abraham J. Lansing, one of the original settlers, in 1771.

LANTANA, a genus of shrubs belonging to the order verbenaceæ, ordinarily called the vervain family. The lantana shrubs are chiefly tropical. They are odoriferous and stimulant from the presence of an essential oil. *L. pseudothea* is used in Brazil as a substitute for tea. *L. camara* and *L. camara* are natives of tropical America, and are often seen in hot-houses. In the Gulf states there are two species which are indigenous, *L. camara* and *L. involucrata*. The lantana bears very showy and beautiful flowers.

LANUVIUM, an old and important city of Latium on the Appian way, about 16 m. s. of Rome, on a hill commanding an extensive view of the sea. It was probably colonized from Alba. It first became important in the 5th c. B.C., by the part it took against Rome as one of the 30 cities of the Latin league. Afterwards in the wars between Rome and the Æqui and Volsci it sided with Rome. But in the great Latin war, B.C. 340, it took part against Rome, but was treated leniently by the victorious Romans, who, instead of punishing, made the inhabitants Roman citizens. After the time of Cicero it was important only as the chief seat of the worship of *Juno Sospita*. After this it continued faithful to the Romans, particularly in the second Punic war. It was the birth-place of Antoninus Pius, of Milo the antagonist of Clodius, and near it was born the comedian Roscius. The small town of *Civita Lavinia* or *Citta della Vigna* occupies part of the site of the old Lavinium, of which but few remains are found.

LANZA, GIOVANNI, b. Vignala, Piedmont, 1815; studied medicine at Turin, and entered into practice in his native place. In 1848 he entered the Italian parliament as a supporter of Cavour. In 1855 he entered the cabinet as minister of public education, and, after serving three years, exchanged this office for that of minister of finance. In 1859, after the peace of Villafranca, he resigned at the same time with the rest of the Cavour cabinet. Again entering parliament, he was several times elected president of that body; but in 1864 he was minister of the interior under La Marmora, serving, however, but for a single year, after which he again entered parliament, and was elected president. Having opposed the financial policy of the prime minister, he resigned the presidency when the ministry triumphed. He was re-elected again in 1869, and when the ministry resigned in consequence he formed a new cabinet himself, taking the position of minister of the interior. This cabinet remained in power until 1873, when Lanza resigned because the parliament refused to levy the taxes necessary to the efficiency of the government.

LAODICEA (*ante*). Not less than six Greek cities, built by the monarchs of the Syrian empire, bore this name, five of them in honor of Laodice, wife of Seleucus Nicator and one in honor of the queen of Antiochus Theos. Of these, one in Media, one in Mesopotamia, and one in Phenicia have not been identified in modern times. Of the others, one is in Iconium, on the high road from Greece to the Euphrates, and another, now known as Latakia, is in Asiatic Turkey, in the province of Syria, on the Mediterranean. The Laodicea described above (*ante*) was annexed to the Roman empire 133 years B.C., after which it became one of the most populous, wealthy, and splendid

cities of Asia Minor, and the capital of the province of Greater Phrygia. The Christian church here was possibly founded by Paul, who is believed by many to have written a letter to it, which has been lost. The only evidence of this is in Col. iv. 16: "And when this epistle is read among you, cause that it be read also in the church of the Laodiceans; and that ye likewise read the epistle from Laodicea." The first epistle to Timothy, if the superscription at the end is authentic (which, however probable, is by no means certain), was "written from Laodicea, the chiefest city of Phrygia Pacatiana." The church of the Laodiceans has become familiar to the Christian world, as a type of spiritual indifference from the description in Rev. iii. 14-18. See LATAKIA, *ante*.

LAODICEA, COUNCIL OF, was held some time during the 4th c., but whether towards the beginning, middle, or end has been earnestly debated without being determined. It consisted of 32 bishops from different provinces of Asia, and embodied its decisions in 60 canons relating to matters of ritual, church order, dignity, precedence, discipline, morals, faith, and heresy. They are all worthy of study as intimating the state of doctrine, thought, and life in the churches of that day, affected, as they had been and were, by the religion, philosophy, vices, and customs of the heathen world. The most important of them is the last, giving a list of the books of Scripture received at that time as canonical, which does not contain the Apocrypha or Revelation.

LAODICEANS, EPISTLE TO THE. The extant Latin epistle, bearing this title and professing to have been written by Paul, is universally admitted to be a forgery of comparatively modern date. It contains 19 verses, evidently made up of clauses and sentiments from several of Paul's genuine epistles, taken out of their connection and awkwardly joined together to the great injury of their intellectual force and spiritual fervor. See EPHESIANS, EPISTLE TO THE, and EPISTLES, SPURIOUS.

LAOMEDON, one of the legendary Trojan kings, succeeded Ilus, who founded the city of Ilium. He is said to have been served by Neptune and Apollo by command of Jupiter, the former erecting the walls of the new city, while Apollo acted as herdsman. Laomedon having refused to pay them according to agreement, Neptune caused a monster to attack the Trojans and lay waste their fields. On this the king offered to reward, with the immortal horses previously given to Tros by Jupiter, whoever should destroy the monster. It having been declared by the oracle that a noble virgin must be sacrificed, the daughter of Laomedon, Hesione, was chosen by lot, but was saved by Hercules, who slew the monster. Laomedon, always deceitful, repaid Hercules with mortal horses, whereupon he attacked Troy, and, having captured the city, killed Laomedon, and raised Priam, his son, to the throne. Laomedon was the grandfather of Paris, who, by abducting Helen, the wife of Menelaus, occasioned the celebrated siege of Troy.

LAO-TZU, or LAO-TSE. See LAOU-TSZE, *ante*.

LA PAZ, a department in Bolivia, extending over a large portion of the valley of the Desaguadero; 45,000 sq. m.; pop. 447,882. It contains the eastern Cordilleras from the Nevado de Illimani northward, the numerous valleys which lie on the e. declivity of that range, and so much of the level plain as lies w. of the Rio Beni. This latter portion and the valleys are very fertile, but are little cultivated. Great quantities of gold sand are brought down by the rivers. Capital, La Paz.

LA PAZ, a t. in lower California, 24° 10' n. lat., pop. 1000; situated on the bay of La Paz. Near it is the harbor of Pichiluigo, accessible for small vessels. The land around is fertile and cultivated, and there is a considerable trade with San Francisco in tropical fruits. Formerly it was the seat of a valuable pearl-fishery, and the gold mine of St. Antonio is near the town. In 1853 a small party of Americans from upper California made an attack on the place, overcame the inhabitants, and declared a republic. They set up a temporary government, but the people of the neighborhood collected an armed force and made a demonstration, when the invaders retired.

LA PAZ DE AYACUCHO, a city in Bolivia, 16° 30' n. lat., and 68° 10' w. long., on both sides of the Chuqueapo river; pop. 83,000. It is one of the finest cities in Bolivia, built at an elevation of more than 12,000 ft., and commanding a magnificent view of the surrounding scenery. The capital of the department of La Paz, it is also the leading commercial center, connected with Islay by the Arequipa railway. Founded in 1548. It contains many public buildings, some of which are ancient. Conspicuous structures are a fine cathedral and 14 other churches, a university, schools, etc.

LAPEER', a co. in s.e. Michigan, drained by the head-waters of Flint river, whose branches uniting within its limits run s.w., the Belle river, 75 m. long, rising in it and running s.w., and Mill creek, running e. and emptying into Black river, in St. Clair co.; 666 sq. m.; pop. '80, 30,138. It is intersected by the Detroit and Bay City railroad, and the Northwestern Grand Trunk railway. Forests of oak and pine grow on a surface of alternate hill and prairie, and maple sugar is included in the forest product. The soil is very fertile, and produces a prodigious amount of grain; also, tobacco, wool, and hops. Stock raising receives some attention; number of sheep in '70, 52,191. Value of all live stock, \$1,181,879. It has 153 manufacturing establishments, employing 707 hands, with a capital of \$546,525; annual product, \$985,854, engaged in making car-

riages, engines, iron-castings, sashes, doors, and blinds. It has a large number of saw-mills, and 11 flour and grist mills. Value of home manufactures, \$10,257. Valuation of real and personal estate in '70, \$11,488,808. Seat of justice, Lapeer.

LAPEER, a city in s.e. Michigan, junction of the Detroit and Bay City railroad, and the Northwestern Grand Trunk railway, 6 m. from the town of Fish Lake, with which it is connected by a branch railroad; pop. '70, 2,882. It is centrally situated on the Flint river, 60 m. n. of Detroit, 50 m. s.e. of Bay City, 20 m. e. of Flint, and 46 m. from Port Huron. It is in the midst of an agricultural and lumber country, and has several saw-mills for the manufacture of pine lumber, and shingles and machine-shops where engines and windmills are made. It has good public schools, a first-class hotel, 3 banks, and 6 churches.

LAPHAM, INCREASE ALLEN, LL.D., 1811-1875; b. N. Y.; having gained a useful experience in Canada as civil engineer on the Welland canal, was engaged on the Miami canal in Ohio, and the canal at Louisville, Ky. In 1827 he was the author of an article in *Silliman's Journal*, entitled "Notice of the Louisville Canal and of the Geology of the Vicinity." In 1833 he held the office of secretary of the Ohio board of canal commissioners, and was a member of a special legislative committee on the geological survey of the state; combining with his official duties the study of botany, and beginning the collection of an herbarium, which at the close of his labors numbered 8,000 specimens. In 1836 he removed to Milwaukee, Wis., and subsequently filled many positions in the gift of state and city, with dignity and honor. He was elected president of the Wisconsin historical society in 1862, and held the office till his death. He called the attention of the legislature of 1867 to the careless destruction of forest trees, suggesting a remedy. In 1869 he originated the system of recording the variations of the atmosphere, since adopted at Washington, and was the discoverer of the lunar tide on lake Michigan. In 1873 he was appointed state geologist, directing, during that and the following year, a thorough topographical survey of the state, and preparing very valuable reports. Besides many important contributions to scientific literature, he published in 1844, *Wisconsin: its Geography, Topography, History, Geology, and Mineralogy*; in 1855 a *Geological Map of Wisconsin*, and *Antiquities of Wisconsin*, the latter in the *Smithsonian Contributions*.

LAPIDARY INSCRIPTIONS, a title derived from the Latin *lapis*, a stone, and applied to monumental inscriptions, epitaphs, etc. These include records of public and private occurrences, of laws, decrees, etc., and are engraved or chiseled in stone or metal. Among the ancients the custom of resorting to this method for the preservation of records was very common, and the Persians, Greeks, Egyptians, and Romans left innumerable instances of this class of memorial. Inscribed tablets of stone or metal took the place of printing, under the ancient system, since upon these being set up in the market, or other public place, every citizen could read them, or procure them to be read to him; and, if he desired, could copy them for his private perusal and study. Commonly these inscriptions, of whatever character, were engraved on metal plates; or more usually on soft clay, which was afterwards baked in an oven or kiln; or again, on marble cut in slabs, while not infrequently they were carved on the flat surface of unhewn rock. Of the metals used, brass and bronze were the most common, though lead, tin, and gold were sometimes employed. Among the very earliest inscriptions were the cuneiform or arrow-headed of the Assyrians, or Babylonians, and the later Persians. These date as far back as 20 centuries before the Christian era, and the investigations of Layard among the ruins of Nineveh, and those of Botta and Rawlinson in deciphering, first brought a knowledge of their existence and nature to the modern world. Burnouf and Lassen followed, with a more perfect rendering; but Rawlinson's translation of all then existing Persian inscriptions, published by the royal Asiatic society in 1846, afforded all that has been learned concerning them. It is sufficient to say with regard to the character of the later Persian inscriptions, that they recorded facts of the reigns of Darius, Xerxes, and Hystaspes, Cyrus, and Artaxerxes; including genealogies, the names of the Persian satrapies, historical events—assassination, insurrection, accessions to the throne, etc. These inscriptions were not only delineated on monuments, solid rocks, and the walls of the cities; but even books were found, being dried slabs of clay, and barrel-shaped masses of terra-cotta, which were closely inscribed. The first notices of the cuneiform inscriptions were brought to Europe in the 16th c. by Pietro delle Valle; a century later, Kœmpfer and Tavernier published imperfect specimens, and these were followed by the publication of Chardin a few years later. The language is said to belong to the Turanian division, and the cuneiform system is believed to have been invented by a Scythian nation. The Assyrian inscriptions appear to have been framed in a method which can hardly be termed alphabetical; but though extremely enigmatical on this account, they have nevertheless been translated by Rawlinson, Fox Talbot, and others, with considerable success. The *Corpus Inscriptionum* of Rawlinson, issued at the expense of the British government, is chiefly historical, and extends from a period 20 centuries before the Christian era, to that of the immediate successors of Nebuchadnezzar, including the reigns of the ancient Turanian monarchs. See **CUNEIFORM**, *ante*. Inscriptions were a customary mode of record among the ancient Greeks and Romans; covering a period, among the latter, extending from 145 B.C. to

the extinction of the Latin language. The people of Etruria also employed inscriptions liberally, but the language which they used has not been deciphered. Inscriptions in India reach back as far as 400 B.C., and those of the Chinese are believed to antedate all others except the Egyptian. The age is unknown of the Aztec and Palenqué inscriptions on the western coast of America, and of those found in the Mississippi valley. The use of abbreviations in inscriptions renders it exceedingly difficult to decipher them, and an art has grown up in that direction, as to which many published works exist. See HIEROGLYPHICS; RUNES, *ante*; ROSETTA STONE.

LAPLACE, PIERRE SIMON, Marquis de (*ante*). Laplace's great field was mathematical astronomy, and he stands second to none, except Newton, in this highest of all scientific branches. To him we owe the demonstration of the invariability of the major axis of the planetary orbits, as well as the inequality of the motions of Jupiter and Saturn. He also solved the problem of the mean motion of the moon, and those connected with the moons of Jupiter. It was his knowledge of physical principles to which he owed his wonderful scientific sagacity, which was also shown in many departments of physics, as in the construction of calorimeters. In his investigation of the discrepancies between theoretical and observed velocity of sound, his calculations for barometrical measurement and for atmospheric refraction, as well as tidal phenomena, he exhibited distinguished pre-eminence. In his numerous works, however, Laplace failed to refer to the labors of his predecessors and contemporaries, which makes it difficult for the student to distinguish between his own work and that of others, and on this account some have looked upon him as a compiler quite as much as a discoverer. In one important particular he fails to give credit to his great contemporary Lagrange, and refers to one of his most splendid mathematical solutions as being a formula (No. 21 of the second book) of the *Mécanique Céleste*; and the works of other mathematicians are overlooked, while references to his own are extremely numerous; but for all this it is remarked by mathematicians that any one of his original researches would place the stamp of mathematical genius upon any man. There is a translation of the *Mécanique Céleste*, by Nathaniel Bowditch (2 vols., Boston, 1829). See BOWDITCH; and Mrs. Somerville's *Mechanism of the Heavens* is a synopsis of a portion of that work. Laplace's *Théorie Analytique des Probabilités*, the most profound investigation of this important subject which has ever been written was first published at Paris in 1812, and again in 1820, with supplements. He died after a short illness, and it has been said that his last words were: "What we know is of small amount; what we do not know is enormous;" but this has been denied, and it is said that his last words were spoken in the presence of Poisson, his favorite pupil, to whom his family had appealed to get him to speak. Poisson, after saluting him, delivered some news which had been received from Germany by the bureau of longitudes in regard to some verifications by Bessel of theoretical discoveries of Laplace upon Jupiter's satellites. He opened his eyes and said, "Man pursues nothing but chimeras," and never spoke again.

LA PLATA, a co. in s.w. Colorado; formed 1874; has for its southern border the state line of New Mexico, and that of Utah on the west. It is drained by the Uncompahgre river, the Las Animas and the Rio Mancoos, Rio La Plata, and Los Pinos, affluents of the San Juan. It holds also the head-waters of the Rio Grande, and numerous small creeks; area, about 7,000 sq. miles. It is traversed by the Sierra San Miguel mountains and the Sierra La Plata, the latter having an altitude of 13,000 feet. It contains the Uncompahgre peak of the Sierra San Juan, with an ascent of 14,235 feet. Dense forests of evergreen cover the long slopes of the mountains, which are divided by cañons thousands of feet in depth. It includes Ute peak, 40 m. w. of Parrott City, towering to a height of 9,884 feet. It is a rich mining region, containing granite, coal, copper, galena, and gold. In the s.w. corner, bordering on Utah and New Mexico, is the Ute reservation; 300 sq. miles; pop. '80, 1110. Seat of justice, Parrott City.

LA PLATA, RIO DE. See PLATA, RIO DE LA.

LA PORTE, a co. in n. Indiana, having a soil of great fertility, watered by the Kankakee, Little Kankakee, and Gallien rivers; about 580 sq. m.; pop. '80, 30,976—23,802 of American birth. The surface is diversified by level plains and groves of timber, with prairie land productive of cereals and adapted to the raising of stock. Wool, maple-sugar, sorghum, honey, and pork are among the staple products. Number of farms in '70, 2,118; value, \$11,368,264. Orchard product, \$36,334. Value of all live stock, \$1,082,302. Along the Kankakee river are broad marshes, lying in the s.e. and southern portion, separating it from St. Joseph and Stark counties, and it has a lake shore boundary of some extent on the n.w. corner. It is intersected by the Pittsburg, Fort Wayne and Chicago railroad, the Lake Shore and Michigan Southern, the Louisville, New Albany and Chicago railway, and the Indianapolis, Peru and Chicago railroad. Number of manufacturing establishments, 111, employing 883 hands, with a capital of \$653,340, and annual product of \$1,234,366, engaged in the manufacture of agricultural implements, brick, carriages, iron castings, saddlery and harness, tin, copper and sheet-iron ware, and woolen goods. It has breweries and several flour and saw mills. Valuation of real and personal estate in '70, \$20,000,000. Seat of justice, La Porte.

LA PORTE (*ante*), a city in n.w. Indiana, with surroundings of great natural beauty, making it a popular summer resort. It is in the near neighborhood of 7 picturesque lakes, navigable by steamboats, and being a junction of the Lake Shore and Michigan Southern railroad with the Indianapolis, Peru and Chicago railroad, it has every facility for transportation and passenger accommodation. It is 59 m. e.s.e. of Chicago, 27 m. w. of South Bend, and 148 m. n.w. of Indianapolis. It contains a court-house, 4 banks, including 1 national bank, a Roman Catholic seminary, Holly water-works, excellent public schools, and a public library of 3,000 volumes. Its manufactures are extensive, furnishing brooms, chairs, carriages, woolen goods, and agricultural implements. It contains the railroad repair shops, and several planing and saw mills.

LAPPS. See **LAPLAND**, *ante*.

LAPRAIRIE, a co. in s.w. Quebec, Canada, has a fertile soil, being watered by several streams furnishing convenient water-power, and separated in the s.e. from Richelieu river by the small co. of St. John. The Chateaugay river empties into lake St. Louis in the extreme n.w., and for its n. and n.w. border the waters of lake St. Louis are met by the St. Lawrence river, which also receive the Ottawa river, by two channels from the w. around the little island of Perrot; 173 sq.m.; pop. '71, 11,861—1351 Indians. In the extreme n. the Victoria tubular bridge spans the St. Lawrence river at the terminus of the St. Lambert division of the South-eastern railway, which forms its eastern boundary line, the Rouse's Point division of the Grand Trunk railway crossing the n.w. corner. It contains a settlement of the Iroquois tribe of Indians, called Caughnawaga, on the s. shore of lake St. Louis, opposite Lachine, which is a point of considerable commercial importance, being a rendezvous for steamers on all the navigable lakes and rivers, including the Ottawa line, and those of Kingston, Toronto, and Hamilton. Between this point and Montreal, 8 m. above, are the celebrated Lachine rapids. In 1836 the first Canadian railway line, now a matter of history only, was in successful operation between Laprairie, connected by ferry with Montreal, and the town of St. Johns. Seat of justice, Laprairie.

LAPSE (*ante*). A legacy may lapse in some cases when the legatee is alive at the time of the testator's death, as when a legacy being limited to A. B., to take effect when he reaches the age of 21 years, he dies before that age. At common law there was this distinction between a lapsed devise of real property and a lapsed bequest of personal property, that a lapsed devise passes to the heir-at-law in the absence of provision to the contrary in the will, while a legacy falls into the residue and passes to the residuary legatee, or, in case none is named by the will, to the next of kin. A lapsed devise or bequest should not be confounded with a void devise or bequest. The former occurs where the donee is dead at the time the will takes effect, i.e., at the death of the testator; the latter when the donee is dead or from any other cause incapable of taking at the time the will was executed. Where the devise is made to issue of the devisor, and the devisee is dead leaving issue, the devise will not lapse unless an intention to that effect be found in the will.

L'ARAISH, or **LARACHE**. See **EL ARAISH**.

LARAMIE, a co. in e. Wyoming, separated from Dakotah by the state line and the Black Hills, and from Nebraska by its frontier, the two constituting its e. boundary. The territory of Montana lies at the n., and Colorado on the s.; about 14,000 sq.m.; pop. '70, 2,957—1898 of American birth. It is intersected in the s. portion by the Union Pacific railroad with branches to Denver. It is watered by the Cheyenne river, an affluent of the Missouri, the North Fork and the South Fork, the Little Powder river, and numerous creeks and small rivers in the n., and in the s. the Niobrara river, the North Platte, Laramie, and their affluents. The n.w. portion is occupied by the Sioux Indian reservation, and the Black Hills belonging to the Ogallalla Sioux. In the s. is the old trading post of fort Laramie, and near the s. border fort Russell at Cheyenne. A considerable portion of the elevated surface of the county spreads out into what are called the Laramie plains; in other sections rising abruptly into buttes, or stretching away into the long ranges of the Laramie mountains. The soil of the bench-land, and in some localities along the river bottoms, has every element of fertility, and the tablelands are adapted to stock-raising. It had in '70, 10 manufacturing establishments employing 133 hands; capital, \$226,000; annual product, \$226,173; engaged in the manufacture of lumber, railroad ties, boots and shoes, clothing, tin, copper, and sheet-iron ware. It has several machine-shops, including the repair shops of the Union Pacific railroad. Since 1874 it has been rapidly settled by miners and prospecting parties; the Black Hills having developed mines of gold, carboniferous limestone, lead, and other minerals. The gold is found in connection with quartz. Harney peak rises to an altitude of 7,403 ft. above the level of the sea. The verdant valleys in this region furnish excellent pasturage, and are famous for their good water. The hills are covered with evergreen trees of fir and pine, with willows along the water-courses.

LARAMIE CITY, on the Union Pacific railroad, w. of the Laramie range of the Rocky mountains, in Albany co., Wyoming territory; 7,122 ft. above the sea, and 57 m. by rail n.w. of Cheyenne; pop. '75, 3,000. It was laid out in 1868 when the railroad was being surveyed across the Laramie plains, which stretch away on all sides from it,

and by their excellent pasturage furnish the basis of a great cattle business for Laramie city. It is also the most convenient point for distributing merchandise from the railway to a large extent of sparsely settled mountain and valley, mining and grazing country beyond the Laramie plains, to which roads radiate from the town. From a cluster of shanties in 1868, mostly saloons and gambling-houses, standing like a forlorn-hope in the center of a houseless and treeless plain, it has become a thriving city with broad streets and trees planted to shade them, watered by a stream from the mountains, with good business blocks, hotels, schools, 2 daily newspapers, churches, banks, a cattle exchange, numerous comfortable residences, and a goodly proportion of educated and refined people. The Union Pacific railroad has extensive machine and repair shops here. Laramie city is noted as the first place in America in which women were summoned by law to form a jury.

LARAMIE MOUNTAINS, the eastern and lower divide of the Rocky mountain range crossing the lat. of 43°, and bounding the Laramie plains on the n.e. and east. This range is connected with the Big Horn mountains n.w. and the Black Hills n.e. "by low anti-clinals extending across the prairie, the most complete and beautiful to be found in the Rocky mountain region." Geologically, the Laramie mountains are made up of red syenite with fossiliferous strata, and outcrops of carboniferous triassic, jurassic, cretaceous, and in some places lignite tertiary; "the beds inclining from a central axis at different angles." Coal is found in several places in these mountains. The Platte river and its branches pierce the range in their flow eastward. Height from 7,000 to 9,000 feet.

LARAMIE PLAINS, in Wyoming territory, lat. 43°, long. 106° w. from Greenwich; an elevated basin of undulating prairie having an average elevation of more than 7,000 ft. above the sea, bounded on the e. by the Laramie mountains and on the w. and s.w. by the Medicine Bow mountains or main divide of the Rocky mountain chain; with an area of 4,000 to 5,000 sq.m.; and drained by the Big and Little Laramie and Medicine Bow rivers. The surrounding mountains are less high and rugged than those of the same range in Colorado, and its climate is remarkable in permitting the growth of the most nutritious grasses on so elevated a plain. Grazing is the great business on these plains. The usual winter snow-fall is not heavy, so that it is not only an admirable pasturage in summer, but a place where it is possible for cattle to live through the winter on the dried grass which they find where the snow is blown off the swells of the prairie. Here for many years the herdsmen of the w., n., and s. have been accustomed to drive their half-starved stock from the far interior valleys and fatten them for the fall market on the growing grass from June till Sept., when they would drive eastward. Now graziers have pre-empted or bought the springs, or sections of land along the water-courses, and even large tracts of the plains, which are fenced with barbed wire in three-strand fencing; so that private ownership and jurisdiction have largely taken the place of the roaming system of herding. Laramie City is the home of most of these owners, many of whom are men of education and represent a large eastern non-resident ownership that furnishes much of the capital used to buy stock, land, and fencing. The annual increase of cattle is about 40 per cent. The business is uniformly profitable on these plains, but ownerships change often, the lonely character of the business giving the successful a desire to remove to more populous regions again. Cattle form by far the greater part of the stock on these plains, and the old Texas wild long-horned cattle are rapidly giving way to crosses with the finest Durham and other blood, adding to the weight and fattening qualities of the stock, and to its docility. Sheep are being introduced into the hills; but, requiring more care than cattle, and being subject to loss from wolves and coyotes, that branch of herding is in its infancy. It is a remarkable peculiarity of cattle-herding on these plains, and also on those e. of the Laramie range, that after the fall "round-up" the cattle are left to wander at will for hundreds of miles to pick a living for themselves; and the owner may spend his winters in the east and find the animals just as well at the spring "round-up" as if they had been watched and herded.

Although the cereals may sometimes and in some places be grown on these plains, the season is too short between severe frosts to make a crop reasonably certain; and as to vegetables like potatoes, although they are grown at fort Saunders, and other points on the plains, it is only as an experiment, and not as a profitable culture. Three successive months without a severe frost are unusual, notwithstanding genial spring, summer, and autumn weather is experienced through eight months.

LARCENY (*anté*) is the wrongful taking and carrying away by one person of the personal property of another, with a felonious intent to convert such property to his own use against the consent of the owner. By the common law larceny was either compound, i.e., the taking and carrying away with felonious intent of personal property from the person or house of the owner; or, otherwise, simple. Simple larceny was called grand larceny where the value of the stolen property was more than twelve pence; and petit where the value was less. *What may be the subject of larceny?* Only personal property can be the subject of larceny. For injuries to the realty a remedy must be sought in trespass. Thus, if one enter upon another's premises and sever and carry away growing crops from the soil or fruit from the trees, he is not guilty of larceny, but

is chargeable in trespass for goods carried away; but if an interval elapse after the severing and acts of trespass, and he come upon the premises and carry away the property, now detached from the realty, he is guilty of larceny if other necessary elements of the offense, as intent, etc., concur. By the common law undomesticated animals (*feræ naturæ*) were not the subject of larceny; nor even when domesticated unless their flesh be used for food, so that there was no such right of property in a dog, for instance, as that larceny of him could be committed. The property taken must have some value, however small; but the common law refused to recognize any value or to make assignable evidences of debt or mere rights to the recovery of debt, so that there could be no larceny of account-books, or notes, or mere personal securities of any kind. But it is otherwise by statute law, which has also removed in most of the United States the distinction between different degrees of larceny, wherever such distinction has obtained.

What constitutes larceny? The property must be actually taken and carried away; must be in the absolute possession of the thief; the taking and carrying must be against the consent of the owner, and must be accompanied by a simultaneous felonious intent at the time the property is taken. Every larceny includes a trespass, i.e., an unlawful act, with force real or implied, to another's property, so that the intent necessary to constitute that offense really comprehends two separate intents, viz., an intent to commit a trespass upon personal property of another, and an intent to deprive him of his property. As trespass is a necessary part of larceny, and possession on the part of the owner is necessary in order to maintain an action of trespass, there can be no trespass against, and consequently no larceny from, an owner not in possession of the property taken. Thus, a common-carrier does not commit larceny if he steal a bundle which has been intrusted to him, for he and not the owner has the legal possession of the property as a result of his contract with the owner. The carrier having possession of, and a special property in, the goods, cannot commit trespass. But if he tear the bundle open and steal goods contained in it he commits larceny; for by breaking open the bundle he terminates his contract with the owner and loses his right to the possession of the goods, the taking and conversion of which added to his act of trespass, make him guilty of larceny. According to this rule, if a carrier takes the whole bundle he does not commit larceny; it is otherwise, if he break the bundle open and carry off a part of its contents. A servant who is intrusted by his master with the care of goods has no legal possession, and is chargeable with larceny of such goods. A special property with possession, such as that of a bailee makes an ownership sufficient to charge with larceny any person taking and carrying away the personal property over which such ownership extends. Thus, the finder of lost goods is answerable only to their rightful owner, and has a full title as against others; and one stealing stolen goods from a thief is chargeable with larceny. But a finder of stolen goods who subsequently converts them to his own use is not chargeable unless at the time of taking he had an intent to permanently deprive the owner of his property. The taking necessary to constitute larceny must be against the owner's consent, and if such consent be had, though fraudulently gained, there will be no larceny, but an obtaining of goods by false pretenses. But it has been held that there is a distinction between the cases of an owner who by fraudulent representations is induced to transfer his goods, and who intends and expects to be divested of his rights of property in them, and the case of an owner who parts for a time, as he supposes, with his property; while at the same time the person who gets possession of the goods intends to convert them to his own use and to deprive the owner permanently of them. It is held that the latter case may be larceny.

LARCH (*ante*). One of the chief differences between these conifera and the pines and firs is their deciduous character. The American larch, or *larix Americana*, inhabits North America from Virginia to Hudson's bay. It is called hackmatack in Canada, but in the middle, southern, and western states, tamarack. It sometimes grows to 70 ft. in height, but is generally much smaller. It is occasionally found on uplands, especially in its northern habitats, but in the middle and southern states it grows in moist soils and shallow swamps, often where the muck or peat is quite deep. It is a slender, beautiful tree, having horizontal branches, but its shade is not dense. The primary leaves are scattered, the secondary ones are many in a fascicle, and are developed early in the spring, as soon as the frost is out of the ground, from lateral, scaly, globular buds. They are at first of a light, yellowish-green, becoming, when mature, dark-bluish, and changing again in the fall to a yellow. The sterile catkins, erect, round, one-quarter of an inch long, are borne near the ends of the branches. The fertile catkins are borne near the middle of the branches, half an inch in length, having a few scales, and of a crimson color during flowering. The ripe cone attains a length of about three-fourths of an inch. The distinction made in the article *ante* between red American (*L. tenuifolia*) and black American larch (*L. pendula*) is not maintained by most authors, who say that the difference is at most a variety, and is caused by difference in locality. The American larch is inferior to the European tree for ornamental purposes, the latter having more fully-leaved and pendulous branches, and cones one-half larger. The *larix Europæa* is indigenous to central Europe, and flourishes particularly in the Alps, where it is a fine timber tree. It has been transplanted in Scotland, and the plantations have yielded profitable returns. Those of the dukes of Athol are celebrated, 14,000,000 larches having been planted on an area of over 10,000 acres previous to 1826.

LARCOM, LUCY, b. Mass.; having passed most of her childhood by the sea-side, went to reside in Lowell, Mass., contributing with her companions in the mill to a magazine called the *Lowell Offering*. She passed some years as teacher at Wheaton female seminary, Norton, Mass., and at Bradford academy, pursuing the same vocation in Illinois, and subsequently editing *Our Young Folks*, a children's periodical, since merged in the *St. Nicholas*. She resides at Beverly Farms, Mass., a delightful summer resort, and contributes regularly to the leading periodicals of the day. The winter of 1878-79 she passed in Bermuda. Her writings are distinguished for a healthy moral tone. Prior to 1866 she published *Similitudes*, a volume of poems; in 1866, *Breathings of a Better Life*; in 1868, *Poems*; in 1874, *Childhood Songs*; in 1875, *Idyl of Work*; and more recently, *Roadside Poems*, and *Hillside and Seaside*; in 1879, *American Scenery*. She assisted the poet John G. Whittier in his compilation of *Child Life*; *Child Life in Prose*; and *Songs of Three Centuries*. She is quoted by the poet Henry W. Longfellow in his *Poems of Places*.

LARCY, CHARLES-PAULIN ROGER DE SAUBERT, Baron de, b. France, 1805; a lawyer, and strong defender of royal legitimacy; author of a work on the *Revolution de la France*; a determined opponent of both republicanism and Bonapartism, yet a member of Thiers's first cabinet of conciliation under the last republic, resigning his position as soon as it became evident that Thiers' government meant republicanism. In all, a persistent agitator for the restoration of an effete order of things in France.

LARDNER, JAMES L., rear-admiral U. S. navy; b. Penn., 1802; entered the navy as midshipman in 1820; was appointed lieut. in 1828, commander in 1851, capt. in 1861, commodore in 1862, and rear-admiral on the retired list in 1866. He commanded the frigate *Susquehanna* in the battle of Port Royal, exhibiting great skill and bravery, and winning the special commendation of rear-admiral Dupont.

LAREDO, a t. in s. Texas, founded in the 18th c. by Spaniards, and situated 165 m. s.w. of San Antonio, Texas (which occupies the site of old fort Alamo), and on the road from that place to Saltillo, in Mexico, near the scene of the battle of Buena Vista: pop. '70, 2,046. It is on the e. bank of the Rio Grande, which separates Texas from the republic of Mexico, and is navigable at that point; on the opposite bank is the town of Nuevo Larédo, settled by those who preferred to live on the Mexican side of the line. Some attention is paid to agriculture in the raising of Indian corn; but wool and hides are the chief products. Flowers of great beauty grow wild on the prairie. Grapes are a natural growth of the soil, also mulberry trees and the vanilla. Wild animals abound, and the smaller kinds of wild fowl. A lucrative trade is carried on with the interior. The climate is healthful, and free from extremes of heat and cold, allowing two crops of corn in the season, and adapted to the economical rearing of cattle and sheep. Mustangs roam the plains, and are brought into subservience. Fort McIntosh, a trading post, is in the immediate neighborhood. It has one church, one newspaper, and an Ursuline convent.

LARGE. The longest note or mark of duration in ancient music; as, for instance, beginning with semi-breve, then breve, long, large; the proportion of time being as 1, 2, 4, 8. The breve is now the longest note in use, though its original signification did not indicate prolongation, but brevity of sound, the measure or unit of time in music having materially changed since the terms above given were in common use in the Gregorian music of the Roman church.

LARI, a t. in s. Italy, in the vicinity of a number of walled cities, 14 m. s.e. of Pisa, and in the province of that name. It contains an ancient castle, and fortifications still in good condition; pop. 10,081. The country in its vicinity is divided into small farms of from 4 to 15 acres, planted with vineyards, and producing large quantities of red and white wine. Corn, rice, and olives are raised, also fruit of every kind, and chestnuts, which often take the place of bread. The Arno, having its source in the Apennines, clothes the neighboring pastures with constant verdure. The clear and mellow atmosphere invests the landscape with the rich warm tints for which Italy is celebrated. Near by are a number of salt springs, and mines remarkable for the abundance and richness of their copper ore; also quarries of alabaster, adding to its material wealth. The neighboring small ranges of mountains, sloping toward the Mediterranean sea, are dotted with groves of pine, oak, and beech, and near the base are woods of chestnut and holm-oak; the plains being shaded by groves of the cypress, orange, citron, carob, and palm.

LARIGOT, a stop of the organ, which is usually termed the "nineteenth." It is tuned an octave above the twelfth stop, or two octaves and a fifth above the diapasons. It has a single rank of metal pipes, and is found in some organs as one of the ranks of the mixture stops.

LARIMER, a co. in n. Colorado, separated from the North park by the Medicine Bow mountains, belonging to the Snowy range of the Rocky mountains on the w., and having for its n. boundary the territory of Wyoming; 2,000 sq.m.; pop. '70, 838-732 of American birth. The Cache la Poudre, rising in the Snowy range, flows s.e., emptying into the South Platte river, and Big Thompson creek, rising in Long's peak, in the extreme s.e., running e. into the same river, irrigate the country and afford water.

power, which is utilized by flour and saw mills. In the e. section the country presents an undulating surface, and a rich soil along the river valleys, producing barley, oats, corn, wheat, and wool. Product of butter in '70, 34,190 lbs. Value of all live stock in '70, \$240,430. Fine timber grows on the mountains, which are extensively covered with pine woods, but eternal snow settles on their summits. The scenery is magnificent. Lignite and silver are found. The height of Long's peak in the s.w. corner is estimated to be 14,271 ft. above the level of the sea. The Colorado Central railroad intersects the e. portion. Number of manufacturing establishments in '70, 7, employing 31 men, with a capital of \$35,400; annual product, \$66,000. Seat of justice, Fort Collins.

LARINÆ, a group of birds often separated as a sub-family of laridæ (q.v.), including the gulls proper, the typical genus of which is *larus* (a gull). A chief characteristic of this sub-family is the hooked projecting upper bill, and also the want of a curve at the base. The genus *larus* has a square tail, and contains the largest and best-known species; *rhodostethia* has a wedge-shaped tail, and *creagrus*, a forked tail, both of the last-named genera being inhabitants of the Arctic ocean. See GULL.

LA RIVE, AUGUSTE DE, 1801-73; was educated in chemistry and natural science by his father, and was appointed a professor in the academy of Geneva. In 1864 he was elected one of the eight foreign members of the French academy. He devoted himself to the study of electricity, and wrote *Traité d'Electricité Théorique Appliquée* (Paris, 1854-58, 3 vols.).

LA RIVE, CHARLES GASPARD DE, 1770-1834; b. Geneva, Switzerland; studied medicine and the natural sciences in England and in Edinburgh; in 1802 became professor in the academy of Geneva, and distinguished himself by researches in chemistry and natural history, and by his contributions on these subjects to the *Bibliothèque Universelle de Genève* and the *Bibliothèque Britannique*. Among his works may be noted: *Observations upon the conversion of starch into sugar*; and an *Essay on the Theory of Chemical Proportions, and the Chemical Influences of Electricity*.

La Rive, in the intervals of his scientific life, was much of a politician; was a member of the provisional council of Switzerland in 1813, which proclaimed a republic, and in 1817 was elected president of the council, from which he retired to his favorite studies. He was founder of the museum of natural history and the botanic garden of Geneva.

LARIX. See **LARCH**.

LARNED, BENJAMIN F., 1791-1862; b. Mass.; entered the army as ensign of the 21st infantry in 1813, and served with distinction through the war with Great Britain. He was brevetted captain for gallant conduct at Fort Erie, where he commanded a company, and on the reduction of the army in 1815 was retained as regimental paymaster. During the war with Mexico he served as deputy paymaster-general, and on the death of gen. Towson succeeded him as paymaster-general of the army with the rank of col., performing the duties of the office with unsullied integrity to the day of his death. At the outbreak of the rebellion his powers were overtasked in the reorganization of his department, and he died in Washington.

LARNED, SIMON, 1754-1817; b. Thompson, Conn.; served as an officer in the revolutionary war, and in 1784 settled at Pittsfield, Mass. He was a member of congress in 1804-5, and in the war of 1812 with Great Britain served as col. of the 9th infantry. After this he was sheriff of Berkshire county.

LARNED, SYLVESTER, 1796-1820; b. Pittsfield, Mass.; graduated at Middlebury college, 1813; Princeton theological seminary, 1816; ordained as a Presbyterian minister, 1817; and soon proceeded to New Orleans, where he produced a deep impression by his eloquence. A church was organized, of which he was chosen pastor, and a large church edifice was erected. In the summer of 1820 the yellow-fever raged in the city with great violence, and though urged to leave, he remained, ministering to the sick and dying until he was attacked with the disease and died. A memoir with a collection of his sermons was published by the Rev. R. R. Gurley.

LAR'NICA. See **LARNACA**, *ante*.

LAROCHEFOUCAULD. See **ROCHEFOUCAULD**, *ante*.

LAROUSSE, PIERRE ATHANASE, b. France, 1817; author of a great number of school-books designed to supplant the old routine of teaching "on the parrot plan"; and publisher and editor of the *Grand Dictionnaire Universel du XIX. Siècle*, the most elaborate biographical cyclopædia in the French language. The studies and published works of Mr. Larousse show an enormous industry. The school-books, to the formation of which the first part of his life was devoted, have been introduced into the schools of France, and made a fortune for him, which he has used to establish his own flourishing publishing-house, and to extend the circulation of all his useful works.

LARTET, EDOUARD, b. at St. Guérand, France, 1801. He was distinguished for his researches in fossil paleontology and prehistoric anthropology. Of the former science he was for many years professor in the museum of natural history in Paris. He made numerous discoveries, among them the mammalian remains in the miocene

deposits of Gers, including skeletons of *mastodon angustidens*, and affording the first sure evidence of the existence of fossil monkeys in Europe. He was subsequently engaged with Gaudry in paleontological investigations, and with Christy in exploring the caves of Périgord and publishing the results.

LA RUE, a co. in central Kentucky, watered by the Rolling Fork, an affluent of the Salt river, forming its northern boundary and emptying into the Ohio river; 240 sq.m.; pop. '70, 8,235—8,182 of American birth, and 965 colored. It is equally divided into forest and plain, the latter undulating, and possessing a soil of great fertility, producing oats, Indian corn, rye, and winter wheat, and is adapted to the raising of cattle, horses, sheep, and swine. Value of all live stock, \$463,541. Value of home manufactures, \$13,140. Number of manufacturing establishments in '70, 23, employing 101 men, with a capital of \$85,750; annual product, \$168,025. It has four distilleries, and flour and saw mills. Seat of justice, Hodgenville.

LA SALLE, a co. in n. Illinois, receives the Fox and Vermilion rivers, flowing into it from other counties, uniting with the head waters of the Illinois river within its borders; 1152 sq.m.; pop. '70, 60,792—44,530 of American birth. It has a surface of broad prairie land slightly undulating, generally well timbered, and possessing a soil of remarkable fertility, adapted to stock-raising and the raising of fruit and cereals. Large deposits of bituminous coal, sandstone, and limestone are found. Cash value of farms in 1870, \$25,274,479. Total estimated value of all farm production, including additions to stock, \$5,502,502. Value of all live stock in 1870, \$3,906,367. Among its products in 1870 are 24,673 horses, 17,200 sheep, 273,374 bushels of wheat, 3,077,028 bushels of Indian corn, and 1,509,642 bushels of oats; other products are barley, buckwheat, tobacco, wool, potatoes, and 1,240,386 lbs. of butter, 52,416 lbs. of honey, also sorghum, flaxseed, and hops. Value of home manufactures \$91,928. It had in 1870, 206 manufacturing establishments employing 1349 hands, with a capital of \$1,691,030, annual product \$2,690,152, engaged in the manufacture of flour, agricultural implements, saddlery and harness, carriages, dressed flax, window glass, machinery, and other industries. It has 5 coal-mines employing 379 hands, with a capital of \$461,360, annual product \$395,535. It is intersected in the s. by the Chicago and Paducah railroad where it crosses the w. division of the Chicago and Alton railroad, and by the Chicago, Pekin and Southwestern railroad; and in the n. by the Illinois Central, the Chicago, Burlington and Quincy, and the Chicago, Rock Island and Pacific. Seat of justice, Ottawa.

LA SALLE, a co. in s. Texas, with an uneven surface, very few trees, and a soil entirely uncultivated, but furnishing excellent ranges for cattle and sheep; 1400 sq.m.; pop. '70, 69—35 of American birth. Fort Ewell, an old trading post, is situated in the southern portion. The Rio Nueces in the s., and Rio Frio in the n.e., with their tributaries, irrigate their respective sections, but the greater portion is not well supplied with water. Value of live stock in 1870, \$39,600. Product of wool in 1870, 26,000 lbs.

LA SALLE (*ante*), a city in n. Illinois, at the head of navigation of the Illinois river, 99 m. w.s.w. of Chicago, 60 m. n. of Bloomington, 15 m. w. of Ottawa, and 1 m. e. of Peru on the same side of the river; pop. '80, 7,871. It is well built on a bluff overlooking a large extent of fertile country, and, with the suburban city of Peru, is made by its railroad connection, and the business brought to it by the canal, the center of a large and constantly increasing trade. It contains a national bank, good public schools, and 2 Roman Catholic academies. It has several foundries, machine shops, manufactories of hydraulic cement, and breweries. It furnishes large quantities of ice for the southern market.

LA SALLE, JEAN BAPTISTE DE, D.D., 1651—1719; a benevolent priest, founder of the *Ordre de la doctrine Chrétienne*, author of a valuable school-book entitled *Civilité Chrétienne*, and made abbé and saint by pope Gregory XVI.

LA SALLE, RENÉ ROBERT CAVELIER, Sieur de, 1643—87; b. in Rouen, France, of a wealthy merchant family; discoverer of the Ohio and the main part of the Mississippi river. Studious and grave in youth, he entered a school of the Roman church and became a Jesuit priest. About his twenty-third year he withdrew from this service with the good-will of his superiors, and sailed for Canada, where an older brother was priest at Montreal in the seminary of St. Sulpice. This seminary was a religious corporation to which had been given a sort of feudal proprietorship of Montreal and its vicinage. The superior, seeing in La Salle a youth of high character, granted him a tract of land with seigniorial rights, where the village of La Chine now stands, near the rapids of the St. Lawrence. The youthful lord built a fort, laid out a village, subdivided and leased lands in the seigniorial form of that day, set apart a park or common, and in his own personal reservation cleared the land and erected buildings. He studied the Indian languages, and in a few years was master of seven or eight dialects. Trade with the Indians in furs, explorations into the surrounding country to extend this trade, and easy communication by the upper St. Lawrence with the tribes on its borders, gave La Salle the means to make improvements at La Chine, and enabled him to obtain that vague knowledge of the great interior which fired his ambition to learn more. Even down to that time men believed in a navigable passage to the South sea, to China and Japan, through this continent. The vast extent of the lakes, then dimly known through information gleaned

from savages, seemed a probable connecting route to the Pacific. A band of the Senecas spent the winter at La Salle's fort and told him of the great Ohio rising in their country and flowing to the sea, but so long that eight or nine months were required to paddle to its mouth. La Salle believed that this stream must empty into the gulf of California on the Pacific. He quietly formed his plans to be its Columbus, obtained the governor's consent, and letters patent authorizing the exploration, *but at his own expense*. He sold his seignory and all improvements to get the means. July 6, 1669, with 14 men and four canoes the expedition started up the St. Lawrence. It took them 30 days to pass the rapids, the Thousand islands, and to reach lake Ontario. Thence they skirted the s. shore to the mouth of the Genesee, where they remained a month, seeking information and friendship among the Indians. Then coasting westward they passed the mouth of the Niagara, heard the far roar of the cataract, and reached the w. end of lake Ontario. There he found a Shawnee prisoner who promised to conduct him to the Ohio river in six weeks. Here he met Joliet, afterwards with Marquette discoverer of the upper Mississippi, returning from a futile search for copper mines on lake Superior. From him he procured a map of the lake country which he had visited. From this point the records of La Salle's movements are not full. It is known, however, that he went southward and embarked on the head stream of the Alleghany river e. of lake Erie and followed it down to the Ohio, which he explored to the rapids at Louisville. There he learned from the natives that, far beyond, this stream joined the bed of that great river which lost itself in the vast lowlands of the south. Here his men deserted in a body. La Salle returned "400 lieues" to Canada alone, living upon the chase, herbs, and the hospitality of the natives. Nicholas Perrot, a famous early *voyageur*, states that he met La Salle in the summer of 1670 hunting on the Ottawa with a party of Iroquois. This gives the required time for his return, and indicates both his reduced circumstances and that he was energetically at work to get the means for another expedition. The season of 1671 finds him embarked on lake Erie, which he skirted in canoes to the mouth of the Detroit river; thence through lake Huron to Mackinac and lake Michigan. Beyond Green bay he explored the western shore of the lake, not known to have been visited before by white men, and made the portage to the Illinois river either where Chicago now stands, or by the way of the St. Joseph and the Kankakee on the s.e. shore of the lake. He followed down the Illinois to, or nearly to, the Mississippi, and made a map of its course and tributary streams. This map indicates that he made the Chicago portage, though his subsequent explorations via the St. Joseph and Kankakee portage indicate that he did not so early learn of the Chicago trail to the Illinois. He returned to Montreal and reported his discoveries. In 1672-73 he seems to have been busy in the fur trade. The latter year he laid before the governor, Count Frontenac, the project for the exploration of the Mississippi. The governor could promise no money, but the project had collateral mercantile advantages in which he might participate with La Salle, so that he gave the sanction of his authority to the enterprise. Ostensibly, the project was to build forts westward of Canada to hold the country for Louis XIV., and to prevent the rich trade in furs from being diverted to the Dutch and English at Albany and New York. In effect it would give him a base of operations for the great discovery to which his imagination and energy impelled him. The forts were to be made centers for the fur trade beyond the competition of Montreal. The project met with strong opposition from the traders of Montreal and from the directors of the Jesuits, but Frontenac's imperious will had its way. By official strategy he managed to have a fort built for La Salle at a point designated by him near where Kingston, Canada, now stands, and invited the Iroquois to a grand council there. La Salle's scheme embraced forts at Niagara and on the upper lakes.

In Nov., 1674, Frontenac sent him to France favorably commended to the king. He was received with honor at the court. In consideration of his services as an explorer he was made an untitled noble, governor of the new fort Frontenac, and given a valuable seignorial grant around it. The season of 1675 finds La Salle back at fort Frontenac and in a position of great power, where his trading plans could hardly fail to realize great profits and ample facilities for his explorations. Wealthy relations at Rouen, now very proud of him, furnished him with ample means to make the improvements and maintain the garrison required by the terms of his grant; which he fulfilled.

About this time a bitter feeling between La Salle and the Jesuits threatened to endanger the success of his enterprises. Evidently a man of settled religious belief in the Catholic faith, he was at the same time advanced in his views of what tends to a people's development, and of the controlling power of commerce. He saw little advantage to France or the Indians in missions merely to induce an outward worship of the cross by the savages. The Jesuits could retain their control over the Indians only by excluding traders from among them. They were therefore enemies of any trading around their distant missions which they could not control for the support of their order. The profits derived from the fur trade under their direction at the missions was an important part of their revenue. Thus a monopoly of trade as well as of religion grew up in their hands, and divided Canada into two parties. The imperious and clear-headed Frontenac and La Salle, with the power of the temporal government, and one branch of the church, were on one side, and the solid Jesuit power was on the other. With the latter were numerous traders who thrived by their favor at the missions.

La Salle was considered the head of the former party, and no means were spared to break his influence and injure his good name. The Jesuits procured an order from the supreme council prohibiting traders from going into the country of the Indians to trade, thus giving their missions the monopoly. La Salle circumvented this by inducing a large settlement of Iroquois around his fort, who could range the country for him as hunters and trappers without being considered traders. Besides a new fort and barracks, he built a flouring mill, a bakery, and groups of houses for French settlers. His fort was surrounded by Indian villages. Absolute lord of the colony, he seemed to lay the foundation of his own fortune by multiplying the means and incentives to industry for others.

Early in 1678 he again visited France to secure confirmation and extension of the privileges of discovery before granted. Colbert, the prime minister of Louis XIV., authorized him to build forts in any region which he might discover, and to hold them on the same terms before obtained in the grant of fort Frontenac; authorized a monopoly of trade in buffalo skins, before hardly thought of; but forbade trade with Indians who brought furs to Montreal. In July, 1678, he set sail for Canada, amply supplied by the wealth of his relatives, and the favor of the government. In Nov. the several parts of the expedition assembled at fort Frontenac. Father Hennepin had a commission under him. On Nov. 8, 1678, disregarding the lateness of the season, he embarked to begin the great journey to the sea. Winter frowned upon the lake, but in eight days the vessel anchored in Toronto bay. On Dec. 5 they crossed to the mouth of the Niagara, and commenced a palisade fort. The vessel was wrecked soon after, and the stores saved from her were carried up the cliffs of Niagara, and thence by sledge to the shore of lake Erie. There, at the mouth of Cayuga creek, they laid the keel of the first vessel built above the falls—the *Griffin*, a bark of 45 tons. A hard winter, scant supply of provisions, the loss of the vessel and stores in lake Ontario, hostile Indians all around them, made the settlement a dreary one. La Salle made his way back to fort Frontenac, 250 m., on foot, through the snows of tangled forests, with two men, a dog and sledge. On his arrival he found his property seized by creditors. He sacrificed it and adhered to the enterprise; returned with equipment for the *Griffin*, which was completed in the spring and summer of 1679. On Aug. 7, La Salle and 34 *voyageurs* embarked. A favoring breeze carried them to the mouth of the Detroit in four days. Nearly wrecked by a storm on lake Huron, they reached Mackinac and anchored behind the point St. Ignace, where the Jesuits had a settlement already strong in numbers and trade. In Sept. the voyage was continued to Green bay. Here he found his advance party had collected a quantity of rich furs. He at once loaded them on the *Griffin* and sent them back to his creditors, but the vessel was never again heard from. La Salle now continued his voyage in canoes along the western shore of lake Michigan. Storms kept them company. Through weeks of constant danger in the surf that lashed the coast, they reached the bay of Milwaukee. South of that, fairer weather, game, and fruit welcomed them; and reaching the mouth of the St. Joseph river he erected fort Miamis. Dec. 3, 1679, with a party of 32 men and 8 canoes they ascended the St. Joseph to where South Bend now is, were shown trails leading to the Kankakee, and carrying their canoes over the portage, launched them in a stream little more than their own width, but growing hourly in volume as they floated down. Near the present village of Utica they found an Indian town of 460 lodges. Here, on New Year's day, 1680, they landed and said mass. A few days later they were at the present site of the city of Peoria, below which they came upon an Indian town occupying both banks of the river. La Salle succeeded in making peace with the natives, though even in that far interior prairie the dark hand of the Jesuit power had found means to stir the Indians to enmity against him. Attempts had previously been made to poison him. It seemed as though every obstruction that Nature and human malignity could join was henceforward to lie in his path. The ice had closed the river. Surrounded by Indians, deserted by six of his men, undermined by the secret influence of his enemies among the Indians, apprised of the loss of the *Griffin* which he had relied on to bring back the means to build a boat on the Illinois in which to sail down the Mississippi to the gulf and thence to the West Indies, this lion heart still kept faith with his great aim. He built a fort near the Indian town called *Crèvecoeur*. That done, he began a vessel of 40 tons on the bank of the Illinois; and then, with four Frenchmen, a Mohican guide, and a canoe, started back to Montreal via his fort at the mouth of the St. Joseph, where they arrived Mar. 24; thence e. on foot to the Detroit river, which they crossed by raft, and on to the fort of the Niagara river. There he learned that a vessel from France, with cargo consigned to him, had been wrecked in the gulf of St. Lawrence. At the fort he took three fresh men, and pushing through the woods of the northern shore of lake Ontario, on May 6 he sighted the walls of fort Frontenac. Here he found that some of his agents had robbed him; his creditors had crippled those who were faithful, and his *voyageurs* and canoes, richly laden with furs, had been wrecked in the rapids of the St. Lawrence. But with a proud front he shamed his enemies by his advent when they hoped to hear of his death. In a short time he secured another outfit, and was on the point of returning to the Illinois when he learned that his fort *Crèvecoeur* had been deserted and plundered by his men, who, organized as banditti of the woods and lakes, had also visited and destroyed the fort on the St. Joseph, plundered Michilimackinac of his furs, came

on to fort Niagara, and plundered that, and there divided, one part going to Albany and the other being then on their way to fort Frontenac to surprise and kill La Salle. Warned at the critical moment, with a small party he surprised them in detail as they came in canoes, and captured or killed nearly the whole party. Having lodged these men in prison, on Aug. 10 La Salle, at the head of 25 men for the Illinois, prepared to finish his vessel for the descent of the Mississippi. He traveled by the eastern shore of Georgia bay to Mackinac. It was Nov. 4 when he reached the ruined fort at the mouth of the St. Joseph. Leaving his stores there, he went on to fort Crèvecoeur. There not only was the fort destroyed, but where he had left a populous Indian village the blackened remains of lodges and human bodies half-burned told of the bloody visit of the Iroquois. He followed the river to the Mississippi, seeing along that whole valley the horrible evidences of the retreat of the whole tribe of the Illinois under the murderous attacks of their powerful enemy. Leaving a mark on the shore of the Mississippi to show that he had been there, his party returned to the mouth to recommence preparations for the great voyage. It was Jan. 6, 1681, when he reached the Kankakee, and soon after the St. Joseph. The horrors of the Iroquois invasion of the Illinois country had made a great impression upon him. He conceived the idea, and at once put it in execution, to unite the western tribes in self-defense by rallying them around the French flag at his forts. His tact, noble presence, and oratory had always given him a wonderful influence among the Indians, swaying them to his will. Soon the discords of warring tribes were made to yield to his plan. Late in May he went to Michilimackinac; thence 1000 m. by canoes to fort Frontenac. This time the great governor had kept La Salle's enemies at bay. Before winter he was again at the head of a strong party pushing in canoes all around the lakes to the St. Joseph, where he arrived early in December.

On Dec. 21, 1681, the party of 54 men in all crossed the lake in canoes to the mouth of the Chicago to find that portage to the Illinois. The streams were frozen. The canoes were put on sledges and dragged over prairie and woodlands of the river margin till they came to open water below lake Peoria. Thence they floated down the Illinois, and on Feb. 6, 1682, emerged on the Mississippi. Floating ice delayed them, but a week later, safely on its rapid current, they were borne toward the gulf. On the 24th they encamped near the third Chickasaw Bluffs, where they built fort Prudhomme. Then in the realms of spring they floated down the tortuous river, finding not only more genial skies but a kindlier and more intelligent race of Indians. La Salle, as usual, won their good-will and planted monuments in their villages to claim the new dominions for the king of France. On Mar. 31 they were at the mouth of the Red river; on April 6, at the divergence of the three mouths of the Mississippi; and April 9, 1682, he erected at the mouth of the river a monument and a cross bearing the arms of France, upon which, with all the ceremonies that could add to the impressiveness of the event, La Salle proclaimed the river and all the lands drained by it to be by right of discovery the dominions of Louis XIV., king of France.

In Sept. of that year the indefatigable explorer was back at Michilimackinac, then at the St. Joseph, and before winter set in was building a fort for the protection of the Illinois at Starved Rock, a natural castle rock that rises abruptly from the Illinois river not far from Peoria. The following year 20,000 Indians are said to have settled near it for protection. In the spring of 1683 it seemed that La Salle had conquered success. He had discovered the valley of the Mississippi. It is true De Soto had crossed it nearly a hundred years before near its mouth, and Joliet and Marquette had explored it at the north, but to La Salle belongs the glory of tracing the great river for the first time from source to sea, and determining the connection between the two discoveries. But his troubles thickened with his success. Frontenac, his determined and powerful friend, was no longer governor of Canada. An enemy was in his place, La Burre, who not only set the king against La Salle but authorized the Indians to consider him and his property as legitimate spoil, seized his forts, and ordered him to Quebec. The king wrote this curious letter to La Barre: "I am convinced, like you, that the discovery of the Sieur de la Salle is very useless, and that such enterprises ought to be prevented in future, as they tend only to debauch the inhabitants by the hope of gain, and to diminish the revenue from beaver skins!" La Salle went back to Quebec, where it does not appear that the governor dared proceed further against him. He sailed for France to see the king—less king than he. At the luxurious court of Louis XIV. this intrepid traveler on lonely coasts and northern snows, this denizen of savage huts, fresh from beds on the frozen ground of Michigan and in the malarious delta of Louisiana, had no difficulty in making powerful friends. Count Frontenac was one. The government reversed its policy, ordered the restoration of all his forts and privileges, and ordered four vessels and money to be placed at his disposal to make the voyage direct from France to the mouth of the Mississippi. The fleet, which sailed July 24, 1684, unluckily was placed under the command of one Beaujeu, a man filled with villainous pride of rank and envy of other authority. La Salle had supreme command of the expedition, but this captain, as the naval officer of the fleet, lost no opportunity to thwart and balk his plans. The voyage was a series of misfortunes from this cause, and when at last in the gulf of Mexico the mouths of the Mississippi were passed unobserved, and La Salle searched vainly for them along the reefs and sandbars of the Texas coast, anchoring at last in

Matagorda bay in the belief that there was the western mouth of the Mississippi known as bayou La Fourche, Beaujeu sailed back with all but one of the fleet, leaving the colony to its fate. On Feb. 16, 1685, the ship laden with stores for the colony foundered on the reefs at the entrance to the bay. "A lonely sea," says Parkman, "a wild and desolate shore, a weary waste of marsh and prairie; a rude redoubt of driftwood and the fragments of a wreck, a few tents and a few wooden houses; bales, boxes, casks, spars, dismounted cannon, Indian canoes, groups of dejected men and desponding home-sick women—this was the forlorn reality to which the air-blown fabric of an audacious enterprise had sunk. . . . The tall form and fixed, calm features of La Salle" were all that remained to stamp with dignity this essay to found an empire for France in the valley of the Mississippi. From this time forth successive misfortunes made La Salle's life but as a dirge anticipating death. He established his colony on the river Lavaca, and found by exploration of Matagorda bay that the great river at its e. end is not a part of the Mississippi, but the Colorado of Texas. Summer and autumn passed in herculean labors without results except a fort and houses for those whom death had not kindly taken. He had resolved to traverse the continent to Canada on foot and again discover the Mississippi on his way, and get succor for his colony from Canada. On Nov. 1, 1685, he parted from the colony at the head of a party to search for the fatal river. At the end of Mar., 1686, with half the party lost or dead, he returned baffled. In the entanglements of strange rivers and swamps, among Indians from whom he could learn little and who had to be placated as he went, the months passed fruitlessly. Fever seized him on his return, from which unhappily he recovered. Again he set out to make the overland journey to Canada. Again in the cane-brakes of Louisiana he was forced to return with the loss of eight men. Now out of 200 who had landed on that desolate shore but 45 remained. After a sickness without sign of despair, having made every provision possible for the safety of the colony, on Jan. 7, 1687, this hero of misfortune again led a little forlorn hope to reach Canada. But desperate men in his little party organized a mutiny, murdered three of their companions while sleeping, and shot La Salle from an ambuscade as he went to face them down.

Thus ended a life under 44 years in length, which had covered half a continent with its explorations, with a record not surpassed in all history for indomitable will and great achievements. Yet ever as he reached out for their fruits he grasped but the ashes of his hopes. Noble in aims, in character, in person, he was only too much elevated in natural capacity above those around him, too haughty and imperious, to attract the kindly good-will of average men; and his misfortunes were jointly the result of these qualities and of the network of warring interests with which the Jesuits of his time constantly beset his path. Sparks's *Life of La Salle* and Parkman's *History of the Discovery of the Great West* give vivid details of his life.

LAS ANIMAS, a co. in s.e. Colorado, has for its southern boundary New Mexico and the Indian territory, and the state line of Kansas on the east. The Sangre de Christo range of the Rocky mountains rises in the extreme west, and the surface is broken by low hills and by the Mesa de Mayo, the table-lands, in the south; about 7,000 sq.m.; pop. '80, 8,904—8,363 of American birth. It is intersected by the Denver and Rio Grande railroad, running from Pueblo southward to Fort Garland in the mountains. It is drained by the Cimarron river, rising in the Raton mountains in the extreme s.e., its banks having no timber; the Las Animas or Purgatory, rising near Purgatory peak of the Rocky mountains, having deposits of coal; and the Apishapa, rising near the Spanish peaks in the n.w.; and by other affluents of the Arkansas river. In the eastern portion are good tillable lands. In '70 it had 80 farms, 1 over 50 and under 100 acres. The leading products are corn, wool, wheat, and oats; of minerals, lignite, coal, marble, and iron ore are found. The land slopes eastward from the Rocky mountains and furnishes fine pasturage on the elevated portion. Fisher's peak of the Raton mountains rises 9,460 ft., in the w. Trinchera peak in altitude 13,546 ft., and Culebra peak 14,079 ft. above the level of the sea. Seat of justice, Trinidad.

LASKER, EDUARD, b. 1829, in the province of Posen in Prussia; student of jurisprudence in Prussia and England, and a lawyer in Berlin. In 1865 he became a member of the German house of deputies from Berlin, and afterwards from Magdeburg and Saxe-Meiningen. Allied by conviction with the liberal party, he still became, by his desire to promote the unity of Germany, the support of the imperial policy of Bismarck to that end. He has been one of the leaders of the national liberal party in the German parliament, where his treatment of economic questions has marked him as one of the most courageous, able, and independent of German statesmen.

LASKI, JAN, or JOHN A'LASCO. See ALASCO, JOHN.

LAS PILAS, one of a chain of volcanic mountains, is situated on the w. coast of Nicaragua bordering on the Pacific ocean; n.w. of Leon lake and on the plain of Leon. It belongs to the Marrabios chain. It rises to a height of 3,985 feet. In 1850, by an eruption of subterranean fires, a gradual accumulation of lava was begun that in a few weeks increased to a height of hundreds of feet; but the volcanic action suddenly ceased and appears to be extinct. It stands at the base of the larger volcano, making one of a number of smaller surrounding craters.

LASSEN, a co. in n.e. California, has Nevada for its e. boundary, and on the s. and s.e. is bounded by a range of the Sierra Nevada mountains; 4,932 sq.m.; pop. '80, 3,340—2,969 of American birth, 382 colored. The Pitt river flows w. through the n.w. portion, emptying into the Sacramento in Shasta co., which forms its western border. The Susan river and Willow creek empty into Honey lake in the s.e., a considerable body of water, shallow, but with no known outlet, at an altitude of 4,200 ft. above the level of the sea. Eagle lake, lake Stanford in the central part, and Alkali lake in the n.e. receive the drainage of its mountainous region. The Black Butte in the s.w., the Walker range in the n., and the long chain of mountains in the s. are covered with forests of pine and fir. There is a large extent of meadow and tillable land in the lake valleys, changing on the plains into a clayey soil with a thick growth of sage-brush. In the river bottoms there is a preponderance of alkali. Its leading products are grain, wool, butter, cheese, and hay. Cattle, sheep, and swine are raised; the uneven slopes of the mountains furnishing good grazing. Silver is found in the gulches. Seat of justice, Susanville.

LASSEN'S PEAK, a spur of the Sierra Nevada mountains, rising 10,577 ft. above the level of the sea, where three counties of California—Shasta, Tehama, and Plumas—meet. It is an extinct volcano, and its soil consists partly of lava essentially composed of feldspar. Its top is covered with snow; pine and fir trees grow to a mammoth size on the slopes beneath, and groves of nut pine, oak, and manzanita flourish on the foot-hills. It is one of the highest peaks of the Sierra Nevada range.

L'ASSOMPTION, a co. in w. Quebec, Canada, n. of the island of Montreal, and bounded on the s. and s.e. by the St. Lawrence river. The eastern portion is formed into a little peninsula by the L'Assomption river, which flows through it to the St. Lawrence; 248 sq m.; pop. '71, 15,473—14,979 of French descent. Directly s. of it the Jesus and Prairie rivers, branches of the Ottawa, encircling the Isle of Jesus, meet the St. Lawrence at the mouth of the L'Assomption river. The surface is mountainous, and is drained by the Mascouche and Achigan rivers. The leading industry is the procuring of timber, supplied from extensive forests of white and red pine; other kinds of timber are black walnut, maple, cherry, and basswood. The winters begin on the last of November and last till the end of March, and the atmosphere is clear and bracing. It has some trade in grain and potash, and the water-power is utilized by flour, grist, carding, and saw mills. Seat of justice, L'Assomption.

LASTEYRIE, FERDINAND CHARLES, Comte de, b. in Paris, 1810; a graduate of the school of mines; aid-de-camp to Lafayette in the revolution of 1830; member of the chamber of deputies 1842–47, where he ranged with the constitutionalists. After the revolution which substituted Louis Philippe and a liberal constitution for the Bourbon régime he was elected member of the constituent assembly from Paris, and acted with the moderate republicans. He joined with members who protested against the *coup-d'état* of Louis Napoleon in 1851, and retired to private life. He is author of numerous works on subjects of art and archaeology, and a valued contributor to the Paris *Siècle*.

LASTRA A SIGNA, a t. in the province of Florence, Italy, on the left bank of the Arno, 8 m. s.w. of the city of Florence; pop. 10,276. Under the Florentine republic it was a fortified place.

LA'SUS, or **LASSUS**, about 510 B.C.; b. at Hermione in Argolis; a Greek dithyrambic poet, reputed to have counted Pindar among his pupils. He lived in Athens in the reign of Hipparchus, and that of Darius, satrap of Persia. Only one of his poems is said to be extant, in Bergk's Greek lyric poets.

LATERAN COUNCILS, the general name given to numerous councils held in the Lateran church at Rome, among the more important of which may be mentioned: I. That of 649 A.D., consisting of over 100 bishops of Italy, Sicily, Sardinia, and Africa, was called by Martin I. to consider the doctrine of the Monothelites. Five sessions were held, the writings of the leading advocates of the theory were examined and condemned, and the judgment of the council, expressed in 20 canons, anathematized all who did not confess that in the one person of the Lord Jesus there are two wills and two methods of working. II. Councils held in 1105, 1112, 1116, and 1123, with reference to the contests between the pope and the emperor concerning the right of investing bishops. The last of these, containing 300 bishops and 600 abbots, all belonging to the Latin church, and presided over by the pope, Calixtus II., adopted the principles of the concordat passed at the imperial diet the preceding year. This declares that "the emperor surrenders to God, Peter and Paul, and to the Catholic church all right of investiture by king and staff. He grants that elections and ordinations shall take place freely in accordance with ecclesiastical laws. The pope agrees that the election of German prelates shall take place in the presence of the emperor, provided it is without violence or simony. In case any election is disputed, the emperor shall render assistance to the legal party, with the advice of the archbishop and bishops. The person elected is invested with the imperial fief by the royal scepter pledged for the execution of everything required by law. Whoever is consecrated shall also receive in like manner his investiture from other parts of the empire within six months." By this arrangement the pope, apparently, made large concessions, but in fact through his influence he was able

to control the elections. This council renewed the grant of indulgences, first made by Urban II. in 1095, in furtherance of the first crusade. It also passed additional decrees for enforcing the celibacy of the clergy. III. The council of 1139, under Innocent II., consisting of about 1000 bishops, at which the antipope, Anacletus II., was condemned, and all who had received office under him were deposed. Roger of Sicily and Arnold of Brescia were also condemned. Thirty canons of discipline were published, among which were several against simony, marriage, and immorality among the clergy. IV. The council of 1179, under Alexander III., containing 280 bishops, the most of whom were Latins, was called to correct the abuses which had arisen during the schism brought to a close by the peace of Venice two years before. The most important of the canons published by it decreed that "hereafter the election of the popes shall be confined to the college of cardinals, and two-thirds of the votes shall be required to make a lawful election, instead of a majority only as heretofore." This council also condemned "the errors and impieties" of the Waldenses and Albigenses. V. The council of 1215, usually called the 4th Lateran, was the most important of them all, as it marked the summit of the papal power. It consisted of 71 archbishops, 412 bishops, 800 abbots, the patriarchs of Constantinople and Jerusalem, and legates of other patriarchs and of crowned heads. It made the doctrine of transubstantiation an article of faith; required that all persons, of both sexes, who had reached the years of discretion, should confess to their proper priest at least once a year; appointed the time and place of assembly for another crusade; and laid a foundation for the persecution of the Albigenses and others by anathematizing all heretics who held anything in opposition to the faith; enjoining that, after condemnation, they should be delivered over to the secular arm; excommunicating all who received, protected, or maintained heretics; and threatening with deposition all bishops who did not use their utmost endeavors to clear their dioceses of them. VI. The council of 1512-17, under Julius II. and Leo X., was important chiefly because it abolished the Pragmatic sanction of Bourges, 1438, wherein France had accepted the decisions of the council of Basle, so far as they were consistent with the liberty of the Gallican church—and substituted for it the concordat agreed on between Leo X. and Francis I., in which the liberties of the church were greatly restricted. The first article of the concordat declared that the chapters of the French cathedrals should no longer, in case of vacancy, proceed to elect the bishop; but that the king should select a proper person whom the pope should nominate to the vacant see.

LATH, or LATHE, a division of a county, still used in England to designate a number of hundreds amounting to less than a shire. Formerly there was a lathe-reeve, or bailiff, in each lathe. The same number of hundreds which constitute the *lathe of Kent* are called the *rapes of Sussex*. In Ireland the lathe is intermediate between the tything and the hundred.

LATHAM, JOHN, 1740-1837; b. Eltham, Kent, England; pursued his medical studies under Dr. William Hunter, and in the London hospitals; commenced the practice of medicine in 1763, in Dartford; early applied himself to the study of natural history, and assisted sir Ashton Lever in arranging his great museum; in 1775 became a fellow of the royal society, and one of the founders of the Linnean society; in 1778 made a corresponding member of the London medical society. He received the honorary degree of M.D. from the university of Erlangen, and was elected corresponding member of the natural history society of Berlin and of the royal society of Stockholm. In 1781-85 he published *General Synopsis of Birds*, in 6 vols. 4to. Differing from Linnæus, he divided birds into but two orders, those of land and water. In 1790 he published the valuable book of reference, *Index Ornithologicus*. Retiring from medical practice in 1796, he devoted himself to the study of ornithology. An edition of his works in 10 vols. 4to, with a general index, under the title of *General History of Birds*, was begun in 1821, and finished in 1828. He wrote also treatises on medical science and natural history.

LA'THIROP, JOHN, D.D., 1740-1816; b. Norwich, Conn.; graduated at Princeton, 1763; taught the Indian school which became Dartmouth college; was a Congregational minister of the Old North church, and of the Second church, Boston, 1768-1816. His degree of D.D. was conferred by Harvard and Edinburgh universities.

LATHROP, JOHN HIRAM, LL.D., 1799-1866; b. Sherburne, N. Y.; graduated at Yale in 1819, and was tutor there 1822-26, after which he entered the legal profession, but soon left it to engage in teaching, first at Norwich, Vt., then at Gardiner, Me. He was professor of mathematics and natural philosophy in Hamilton college, 1829-35, and of law, history, etc., 1835-40, when he became president of the university of Missouri, serving until 1849, after which he became successively chancellor of the university of Wisconsin, president of Indiana university, professor of English literature in the university of Columbia, Mo., and finally its president from 1865 until his death.

LATHROP, JOSEPH, D.D., 1731-1820; b. Norwich, Conn.; graduated at Yale college in 1754; ordained pastor of the Congregational church of West Springfield in 1756, retaining the position 64 years. He received the degree of D.D. from Yale college in 1791, and from Harvard university in 1811. In 1792 he was elected fellow of the American academy of arts and sciences. His works, mostly sermons, were published in 7 vols., the last containing an autobiography.

LATIN CHURCH. The Christian church having been disrupted in the 9th c. the two divisions were called the eastern and western, or Greek and Latin churches, the term Latin having reference to the section which recognized the Roman pontiff as its governing head, and whose services were conducted in the Latin language. See **ROMAN CATHOLIC CHURCH**, *ante*.

LATINI, BRUNETTO, 1230-94; b. Italy; son of Bonacorso. Exiled in 1260 on account of his devotion to the cause of the Guelphs, of whom he was the leader, he took up his residence in Paris as teacher of belles-lettres, remaining there many years. In 1284 he held the office of syndic in Florence, whence he had returned in the change of dynasty, and became the tutor of Dante. He is celebrated as an orator, and poet. His portrait is one of the four which decorate the tomb of Dante, being set in a medallion in the cupola. In 1353 he published *Tesoretto*, a didactic poem, and subsequently *Liore du Trésor*, a compilation in French, containing extracts from classical history, philosophy, and rhetoric; in the first part mention is made of the use of the mariner's compass. Italian translations of this work were published in 1474 and 1824. Previous to 1863 his manuscripts were published by F. A. P. Chabaille in his *Documents Inédits de L'Histoire de France*. In 1855 *Liore du Trésor* was published in Paris at the public expense. He was buried in the church of Santa Maria Novella at Florence.

LATIN UNION. By the monetary treaty of Paris of Dec. 23, 1865, France, Belgium, Switzerland, and Italy entered into a mutual agreement concerning the monetary and coinage policy, which took effect Aug. 1, 1866. That association of states is called the Latin union. Greece and Roumania came into the association in April, 1867. The following is the substance of the treaty:

Article 1. "Belgium, France, Italy, and Switzerland unite to regulate the weight, title, form, and circulation of their gold and silver coins. No change is made for the present in legislation relative to copper coins for the four countries."

Art. 2. "The high contracting parties bind themselves not to coin, or permit to be coined, any gold other than in pieces of 100, 50, 20, 10, and 5 francs in weight, standard, tolerance, and diameter as follows: All these coins shall be of the fineness or standard of .900, with a tolerance of two-thousandths above or below the legal standard. The tolerance in weight shall be, for the 100 and for the 50 franc pieces, one-thousandth above or below; for the 20 and 10 franc pieces, two-thousandths; for the 5 franc pieces, three-thousandths. [The weights and diameters of the gold coins here follow in French measure. Ed.] The different states will receive all the above coins when not worn to one-half per cent, or the devices effaced."

Art. 3. "The contracting governments bind themselves not to coin, or permit to be coined, silver pieces of 5 francs except of the weight, standard, tolerance, and diameter fixed."

Art. 4. "The contracting parties will coin hereafter pieces of 2 and 1 franc, 50 and 20 centimes, only to the fineness of .835; tolerance of standard $\frac{0.02}{1000}$ th; of weight $\frac{0.05}{1000}$ for the first two, $\frac{0.07}{1000}$ for the 50 centime piece, and .01 for the 20 centime piece." [Here follows the French weight and measure of the silver coins. Ed.]

Art. 5. [Stipulates for the withdrawal and recoinage of silver pieces of 2 francs and under, not of the required standard, within a stipulated time.]

Art. 6. "The silver coins authorized in article 4 shall be a legal tender between individuals of the state in which they are issued to the sum of fifty francs. The nation issuing them shall receive them in any amount."

Art. 7. "The public banks of each of the four countries will receive the coins of article 4, to the sum of 100 francs, in payment to said banks." [The remainder of the article relates to exceptions for Swiss coins.]

Art. 8. "Each of the contracting governments binds itself to receive from banks or individuals the small coins they have issued, and return the equivalent in current coin (gold, or 5 franc silver pieces), provided the sum presented be not less than 100 francs. This obligation shall extend two years beyond the expiration of this treaty."

Art. 9. "The high contracting parties agree not to issue a greater amount of these 2 and 1 franc, 50 and 20 centime pieces of article 4, than six francs for each inhabitant. The amount thus fixed in accordance with the last census and the presumed increase of population is fixed at (1866), for Belgium, 32,000,000 francs; for France, 239,000,000 francs; for Italy, 141,000,000 francs; for Switzerland, 17,000,000 francs. Exclusive of the above sums, the different governments can issue of coins already in circulation in the following proportion: France, in 50 and 20 centime pieces, by the law of May 25, 1864, about 16,000,000 francs; Italy, in 2 and 1 franc, 50 and 20 centime pieces, by the law of the 24th of Aug., 1862, about 100,000,000 francs; Switzerland, in 2 and 1 franc pieces by the law of Jan. 31, 1860, about 10,500,000 francs."

Art. 10. "Hereafter the year of issue to be stamped on all the gold and silver coins issued by the four governments."

Art. 11. "The contracting governments shall annually state the quantity of their issue of gold and silver coins, and the amount collected for melting. They shall likewise give notice of important facts in regard to the reciprocal circulation of their issues."

Art. 12. "Any other nation can join the present convention by accepting its obliga-

tions, and adopting the monetary system of the union in regard to gold and silver coins."

Art. 13. [Binds the contracting parties to pass laws to carry out the foregoing agreements.]

Art. 14. "The present convention shall remain in force till Jan 1, 1880. If it be not repealed a year before the expiration of that term, it shall remain in force for an additional period of 15 years, and so on until repealed."

Art. 15. "The present convention shall be ratified, and the ratifications exchanged in Paris, within six months, or less time if possible." [It was so ratified.]

On Jan. 30, 1874, at a conference of the Latin union, a supplementary treaty was made between the high contracting parties, by which they agreed to limit the coinage for the year 1874, of 5 franc pieces, to 12,000,000 francs in Belgium; 60,000,000 francs in France; 40,000,000 francs in Italy; and 8,000,000 in Switzerland; in all, 120,000,000 francs; and the delivery of coins upon mint receipts of Dec. 31, 1873, to the amount of nearly 50,000,000 francs, was applicable on these quotas. By a special article, Italy was allowed to coin, for the reserve of her national bank, 20,000,000 francs additional in 5 franc pieces.

The two annual conferences of the union in Feb., 1875 and 1876, made the same limitation for those years respectively, which were subsequently enacted by the respective governments; but a small additional issue was allowed to Greece in 1876.

The conference of 1877 entirely suspended the coinage of 5 franc pieces, except 9,000,000 francs for Italy.

By a law of Dec. 18, 1873, Belgium has the power to suspend the coinage of silver entirely. France passed a law to the same purport in 1876. Switzerland has one to the same effect. It will be observed that the treaty of 1865 limits the coinage of silver as to maximum, but does not make any coinage obligatory. The actual coinage, therefore, cannot be inferred from it.

In the autumn of 1878, through a conference in Paris, the same nations renewed their monetary treaty as it was, "in all that relates to fineness, weight, denomination, and currency of their gold and silver coin." Article 9 of the new treaty guarantees to each state free coinage of gold (excepting gold 5 franc pieces, of which the coinage is suspended), and provides that "the coinage of silver 5 franc pieces is provisionally suspended," but "it may be resumed when a unanimous agreement to that effect shall be established between all the contracting states." The treaty is in force by its term till Jan. 1, 1886. In 1875 Holland suspended the right of private individuals to have silver coined at her mint, which law is believed to be still in force. Being a party to the union, her act becomes a factor in the general policy of the union.

In view of the foregoing facts, and the further fact that France holds more than 2,500,000,000 francs in silver coin within her borders, it is not difficult to see that she has directed the legislation of the union with consummate ability to prevent a large decline in its value. Notwithstanding the suicidal attempts in the legislation of other nations to demonetize it, she has succeeded not only in saving her own capital in silver, without loss of value in its home circulation, but in acquiring it at reduced cost from her neighbors. See MONETARY CONFERENCES, INTERNATIONAL.

LATINUS, legendary King of Latium, son of Faunus and the nymph Marica, and father of Lavinia, wife of Æneas, who, on the death of Latinus, succeeded to the throne of Latium.

LATITUDINARIANS, in ecclesiastical history, a class of English divines in the reign of Charles II., towards the close of the 17th c., who were opposed both to the high tenets of the ruling party in the church and to what they regarded as the fanatical views of many dissenters. They considered as unimportant the matters of dispute between high-churchmen and Puritans, and endeavored to take a middle course between the strict Presbyterians and independents, on the one hand, and the more intolerant Episcopalians on the other. They were branded by both parties as deists and atheists as well as latitudinarians. They were generally low-churchmen, and their creed was nearly that of the Dutch Arminians. Among the prominent of this class were Hales, Chillingworth, Cudworth, Tillotson, Henry More, Wilkins, and Gale. They were raised to important places during the reign of Charles. Their principles were explained and defended by Fowler, bishop of Gloucester, in a work entitled *The Principles and Practices of Certain Modern Divines of the Church of England, abusively called Latitudinarians, Truly Represented and Defended, by way of Dialogue*. As a theological term it is now applied generally to those who hold opinions at variance with the more rigid interpretation of Scripture and church traditions. The name is given also to the modern broad-church party.

LATIUM, a country of Italy formerly occupied by the Latini, now covered by the Pontine marshes and uninhabitable. The Latins, one of the oldest known nations of Italy, are said to have migrated from the central Apennines, and settled the land between the Anio, the Tiber, the Alban mountains, and the sea, which was named Latium after them. Over these plains they spread themselves in small settlements, which grew into villages, and even became important towns long before the foundation of Rome. Among these towns were Laurentum, Lanuvium, Alba Longa, Tusculum, Aricia, etc.

These Latin communities were united by religious rites, which were celebrated in a temple of Diana in a grove near Aricia; in a temple of Venus between Lavinium and Ardea; and elsewhere. The original deities of the Latins were Saturnus, Janus, and Faunus; Venus and others appear to have been introduced into their mythology at a later period. The towns of Latium were strongly built in positions favorable for defense, and surrounded by massive walls. This was a necessary precaution, as the growing wealth and power of the inhabitants brought them into conflict with their neighbors, the Volscians, and with Rome. From the time of Tullus Hostilius there was constant warfare with the latter country, until, under the consulship of Spurius Cassius and Postumus Cominius, in the beginning of the 5th c. B.C., a solemn league and treaty was established between Rome and Latium, which existed for about 100 years. But after the conclusion of the invasion of the Gauls, and when these barbarians had retired from the ruined city, the Latins, Volscians, Etruscans, and other ancient enemies of Rome took advantage of her extremity to attack her. They were, however, defeated, and forced to make peace on terms favorable to Rome. This condition was not, however, permanent, the Latins being always aggressive, and jealous of the supremacy of Rome. The "great Latin war," as it is termed in history—said to be the greatest in which Rome ever engaged—occurred in 340 B.C.; lasted during 3 years; and ended in a decisive battle in the plain near the base of Vesuvius, in which Rome was entirely successful, and barely one-fourth of the Latins escaped. Soon afterwards they made their submission to Rome, and a portion of their land was taken from them. Then city after city of Latium was brought under subjection; the general assemblies of the Latins for self-government were abolished; the walls of Velitræ—a Latin city, formerly a Roman colony—were razed to the ground, and its senators banished; and thus terminated the existence of Latium as an independent state. It is said of Latium that probably never on the earth's surface were crowded together so many cities in so small a space. They numbered about 60 authentic towns, on an extent of territory 64 m. by 28 in dimensions. After their subjugation the inhabitants permitted their system of drainage and sewerage to become disordered; the water-courses stagnated; and in place of the thriving, busy plain, alive with bustling cities, there grew to be a vast swamp, unproductive and unhealthy, the present Roman Campagna. This locality is not only malarious, but in every way desolate and forbidding. The ground is volcanic, the many lakes which cover it being formed in craters. Hot sulphur springs exist in the district lying between Rome and Tivoli. The marshes which existed at the period when Latium was in its prime, but were drained in the inhabited portion, were the favorite habitat, in their unreclaimed part, of wild boars, which were hunted for the tables of the Roman aristocracy. Even at the present time, the Pontine marshes are famous for this species of game.

LATONA, in Grecian mythology, the mother of Apollo and Diana by Jupiter. When pursued by the jealous Juno, she finally found refuge on the floating island of Delos, which was made fast for her by order of Neptune. She had no temples, but was worshipped only in connection with her children.

LATROBE, BENJAMIN H., b. Philadelphia, 1806; a civil engineer and railroad manager; studied and practiced law for a few years, then became an engineer; in 1830 had charge of the construction of the Baltimore and Ohio railway between Point of Rocks and Harper's Ferry; and became chief-engineer of that road in 1842. He was afterwards chief-engineer and president of several railway companies, and an esteemed consulting engineer.

LATROBE, BENJAMIN HENRY, 1767-1820; b. England; d. New Orleans; an English architect who came to America in 1796, and had charge of the works for the improvement of the navigation of James river, Va., and soon after became state engineer; subsequently was employed by the U. S. government in constructing light-houses and fortifications on the coast, and as inspector of public works. He designed the old national bank in Philadelphia, the cathedral and merchants' exchange of Baltimore, the old hall of the house of representatives at Washington; and died while engaged on the water-works of New Orleans.

LATRUNCULI, the name given to an ancient Roman game, whose origin is of unknown date, but attributed by some to Palamedes, to whom is also ascribed the invention of chess, backgammon, and dice. The game resembled chess in some respects, being played on a board, and with pieces of different colors. The number of pieces varied between five and twelve, and it was at first strictly a game of skill. Later, the introduction into it of the use of *tesserae*, or dice, brought into it the element of chance. It is possible that this was one of the first crude attempts, out of which gradually grew the game of chess.

LATTER-DAY SAINTS. See **MORMONS**, *ante*.

LATUDE, HENRI MASERS DE, 1725-1805; b. France; having served a number of years in the French army, began the study of mathematics in Paris. A trick easily discovered, by which he hoped to gain the favor of Mme. de Pompadour, made him the victim of unmerited condemnation for the period of 35 years. In 1749 he attempted to prove his disinterested admiration for her by warning her of an attempt upon her life,

to be made through a dangerous powder that she was to receive in a package. Finding that it emanated from him, a simple ruse to gain her favor, she caused his arrest, and with inexcusable obduracy kept him imprisoned in the Bastille and at Vincennes until her death. In 1750, 1756, and 1764 he made unsuccessful escapes; in the first instance voluntarily surrendering himself within a week, in the second being rearrested in Amsterdam, and the third time, soon after his transfer to the prison at Vincennes, he made his escape and was retaken. His imprisonment subsequent to the death of Mme. Pompadour is unaccountable, he having led a quiet, thoughtful life during incarceration, when not suffering from too rigorous treatment. In 1777, having been liberated through the intercession of Malesherbes, he was soon after arrested again, and kept in a dungeon at Bicêtre for many years. At length, in 1784, with the change brought about by a turn in political affairs, the popular voice being in his favor, he was liberated and pensioned, under the patronage of Mme. Legros. In 1793 he claimed damages from the heirs of Mme. de Pompadour, and received 10,000 livres. In 1789, besides several essays, he published *Mémoire de M. de Latude, ingénieur*; in 1791-92 *Le Despotisme Dévoilé, ou Mémoires de Latude* was published by Thierry; and in 1838 *Mémoires inédites de Henri Musers de Latude*.

LAUBE, HEINRICH, 1806; b. in Silesia, became professor at Breslau, and in 1831 settled in Leipsic, to follow a literary career. In 1834 he journeyed in Italy. On his return to Germany he was implicated in the organization of the *Burschenschaft*, a secret organization of young Germans, mostly collegians, to promote progressive reforms in the German government. The royal government sought the suppression of this society, and Laube was imprisoned nine months in Berlin for his participation in its work. After his release, he renewed his connection with it, and was again imprisoned from 1837 to 1839. On his release he visited France and Algeria. After the revolutionary movements of 1848 he was made deputy from a Bohemian town to the parliament of Frankfort, and voted with the moderate party. In 1849 he went to Vienna and became director of the court theater, and remained twenty years. In 1869 he became director of the theater of Leipsic. He is a writer of lively powers of observation and wit, one of the recognized members of what is called the "young Germany" school in literature, and rather distinguished by the beauty of his style than the peculiarities or value of his thoughts. From 1832 to 1844 he was chief editor of fashionable and theatrical journals, and a prolific author. The following are among his works: *Das Neue Jahrhundert*, 1833; *Modernen Charakteristiken*, 1835; *Geschichte der Deutschen Literatur*, 1840; *Das Erste Deutsche Parlament*, 1849; *Das Burgtheater*, 1868; *Französische Lustschlösser*, 1840; *Das Junge Europa*, 1833-37; and several dramas.

LAUDA SION SALVATO'REM ("Praise the Saviour of Zion"), a rhymed Latin hymn by Thomas Aquinas, in 12 stanzas, sung in Roman Catholic churches on Corpus Christi Sunday. Nine of the 12 stanzas have six lines each, two eight lines each, and one, the last, ten lines.

LAUDER, ROBERT SCOTT, 1803-69; b. near Edinburgh; studied painting under the patronage of David Roberts and sir Walter Scott in Edinburgh and London, after which he spent five years in Italy. From 1838 to 1849 he resided in London, and after that time until his death in Edinburgh. His best works were scenes from Scott's novels. His "Christ Teaching Humility" was purchased by the Scottish association for the encouragement of art and placed in the Scottish national gallery at Edinburgh.

LAUDER, Sir THOMAS DICK, 1784-1848; b. Edinburgh; was first brought into notice by contributions to *Tait's* and *Blackwood's Magazines*—*Simon Roy, Gardener, of Dumphail*, being ascribed by some to the author of *Waverley*. In his youth he wrote *Lochandhu* and the *Wolf of Badenoch*. He read a paper on *The Parallel Roads of Glenroy* before the royal society of Edinburgh, which was published in vol. ix. of their *Transactions*. It consisted of a description of the geological strata of that district of the Highlands. He published also sketches of Scottish scenery under the titles of *Highland Rumbles, with Long Tales to Shorten the Way*, 2 vols.; *Legendary Tales of the Highlands*, 3 vols.; *Tour Round the Coasts of Scotland*; and a *Memoria. of the Royal Progress in Scotland* in 1842. He was for several years secretary of the board of Scottish fisheries and of arts and manufactures. He was a baronet, and was succeeded in his title by his son, sir John Dick Lauder.

LAUDER, WILLIAM, d. 1771; b. in Scotland early in the 18th c., and educated at the university of Edinburgh. He was a Latin scholar of some celebrity, but is remembered chiefly for a series of articles in the *Gentleman's Magazine* (1747) (afterward printed in a book with a preface by Dr. Samuel Johnson), in which he pretended to show that Milton, in *Paradise Lost*, had borrowed largely from modern Latin poems by Grotius and others. It afterward appeared that the work was an imposture, the parallel passages quoted to support the charge of plagiarism against Milton being ascertained to be either forgeries or taken from a Latin translation of *Paradise Lost*. Lauder confessed the fraud and went to Barbadoes, where he died.

LAUDERDALE, a co. in n.w. Alabama, has for its entire southern and western boundary the Tennessee river, and on the n. the state line of Tennessee; about 750 sq. m.; pop. '80, 21,035—20,838 of American birth, 6,809 colored. Cypress creek, rising

beyond the border, flows southward, emptying into the Tennessee river, and Shoal creek takes a parallel course. By its southern border, where the Tennessee river is about $1\frac{1}{2}$ m. in width, are the rapids called Muscle shoals, with a descent of 100 ft. in 20 miles. The surface is undulating, particularly in the northern section, with broad tracts of woodland. The soil is suited to the cultivation of cotton and tobacco; other products are those of the dairy, and honey, grain, and sorghum. Limestone and iron ore are found. It is connected with the Memphis and Charleston railroad by the Tusculumbria branch, and has a number of cotton factories in the south. Seat of justice, Florence.

LAUDERDALE, a co. in e. Mississippi, intersected by the Alabama Great Southern, the Vicksburg and Meridian, and the Mobile and Ohio railroads, which form a junction at Meridian; bounded on the e. by the state line of Alabama; about 700 sq. m.; pop. '80, 21,501—21,300 of American birth, 11,541 colored. It is drained by the head waters of the Chickasawha river, and has level, tillable lands, principally productive of corn, cotton, honey, rice, and sweet potatoes. Cattle, sheep, and swine are raised; value of all live stock in '70, \$284,179. Its manufacturing industries are few, and include the product of saw mills, sashes, doors, and blinds, and one or two cotton factories. Seat of justice, Meridian.

LAUDERDALE, a co. in w. Tennessee, having the Mississippi river for its w. boundary, separating it from Missouri and Arkansas, drained by Forked Deer creek, emptying into the Mississippi river, and by the navigable Big Hatchie river forming its s. boundary; 400 sq. m.; pop. '80, 14,918—14,843 of American birth, 5,839 colored. Its surface is generally level and well timbered, containing iron ore and limestone. Its soil produces fruit in abundance, wheat, rice, oats, corn, rye, tobacco, cotton, wool, sweet potatoes, and dairy products; cattle, sheep, and swine are raised. Cash value of farms in '70, \$2,536,980. It had in '70, 77 manufacturing establishments, employing a capital of \$55,025, with a product of \$280,338. Seat of justice, Ripley.

LAUDERDALE, JAMES, about 1780—1814; b. Va., and removed early in this century to w. Tennessee. He bore a prominent part in the Creek war under gens. Coffee and Jackson, and was killed in the first battle of New Orleans, Dec. 23, 1814.

LAUDERDALE, JOHN MAITLAND, Duke of. See MAITLAND, *ante*.

LAUDIAN MANUSCRIPT (CODEX LAUDIANUS), named after archbishop Laud, who in 1636 presented it to the university of Oxford, is a very valuable MS. of the Acts having in parallel columns and uncial letters the Greek text with a closely literal Latin version, different both from the Vulgate and from Jerome's. The Latin words are always exactly opposite the Greek. The portion from xxvi. 29 to xxvii. 26 has been lost. The vellum is inferior and the ink pale. It was probably written in the w. of Europe and about the 6th century. It is now in the Bodleian library, and is numbered 35. Readings were taken from it by Fell in 1675, and Mill in 1707. In 1715 Hearne published it in full.

LAUDOHN, or LOUDON, GIDEON ERNST, Baron von, 1716—1790; b. Totzen, Livonia; a distinguished Austrian gen. of Scottish descent; at an early age entered the Russian service, and fought in several battles against the Turks, retiring after the peace of Belgrade in 1739 with the rank of lieutenant; in 1742 enlisted in the Austrian army, where he was rapidly promoted to the rank of capt., maj., and lieutenant-col. In the seven years' war against Frederick the great he so distinguished himself as to receive in a year the rank of maj. gen., and in three years became commander-in-chief. When peace was proclaimed in 1763 he received the title of baron, and in 1766 the honor of aulic counselor. In 1769 he became commandant-gen. of Moravia, and in 1778 field-marshal of the empire. In the war with the Turks he was victorious at Dubicza, Novi, and Grandisca. In 1789 he was made knight of the order of Maria Theresa.

LAUDONNIÈRE RENÉ GOULAIN DE, a French navigator of the 16th century. When the French admiral Coligny had secured a patent from Charles IX. to enable him to colonize the Protestants of France in America, he sent Laudonnière in 1562 to select a location and make a settlement. This was two years after Jean Ribault had built a fort and planted a small French colony at Beaufort in Port Royal bay, a remnant of which had returned to France. Laudonnière built a fort on the St. John's river named fort Caroline, where he established a colony. Difficulties with the Indians ensued; affairs were generally mismanaged; a band of the colonists were permitted to make a voyage of depredation against the Spaniards on the coast of Cuba. With the remnant of the colony he was about setting sail for France when Ribault, who had been appointed to supersede Laudonnière in the government of the colony, appeared Sept. 4, 1565, with a fleet of seven vessels. Almost simultaneously a Spanish fleet of five vessels, under Don Pedro Menendez de Aviles, appeared. In answer to the French challenge as to his purpose there, the Spaniard responded that he came with orders from his king to gibbet and behead all the Protestants in those regions. "The Frenchman who is a Catholic," he added, "I will spare. Every heretic shall die!" The French fleet, unprepared for battle, fled. The Spaniards, failing to overtake them, returned to the harbor of St. Augustine. The French fleet seems to have run to cover up the St. Johns under

the walls of fort Caroline. Ribault, against the advice Laudonnière, decided to return with his fleet to attack the Spaniards at St. Augustine. He had reached the open sea when a storm arose and his squadron was wrecked near cape Canaveral, but the men, to the number of 500, were saved. Menendez then marched over land to the unprotected fort Caroline. Laudonnière, with but a handful of men, took refuge in the fort. It was quickly taken. The Spaniards executed Menendez's threat with their usual cruelty, murdering nearly the entire colony of 200 men, women, and children. Laudonnière, with a few men, escaped into the swamps near the fort and finally reached the coast. Meantime Ribault, ignorant of the tragedy at fort Caroline, conducted his men through swamps and everglades back to the settlement. The first body of 200 men, on reaching the fort, surrendered to Menendez and were slain. Ribault, with the second division of the force, fell into his hands soon after and they were also massacred; "not as Frenchmen, but as Lutherans," observes the discriminating murderer. Laudonnière, with the few others who had escaped, succeeded in reaching one of the vessels on the coast which was saved from the wreck of the fleet; and, returning to France, was driven on the English coast, where he remained till 1566. He seems to have been a man of little force, and made historical only by the colonial tragedy with which he was connected. In 1586 he published *L'Histoire Notable de la Floride, Contenant les trois Voyages faites en icelle par des Capitaines et des Pilotes Français*.

LAUGIER, AUGUSTE ERNEST-PAUL, 1812-72; b. Paris; son of Stanislas, the surgeon; educated at the polytechnic school of Paris, and attached to the family of the astronomer Arago as a student of astronomy in the natural observatory of Paris. He was elected member of the academy of sciences in 1843, and was decorated in 1844. He has since been attached to the bureau of longitudes, and one of the examiners at the naval and marine school. He has published numerous astronomical works.

LAUMONTITE, called also **LAUMONITE**, and by Werner, efflorescing zeolite, because it crumbles easily after exposure to the air. It is one of the hydrous silicates, having the following average composition, which is from an analysis by Dufrénoy of a specimen from Phippsburg, Me.: silica, 51.98; alumina, 21.12; lime, 11.71; water, 15.5=99.86. It crystallizes in oblique rhomboidal prisms and in lamellar masses. Hardness, 3.5 to 4; sp. gr. 2.29 to 2.36. Vitreous, inclining to pearly upon the faces of cleavage. Color white, passing into yellowish gray, sometimes red; transparent, translucent, becoming opaque, and pulverulent on exposure. Before the blowpipe it fuses into a frothy mass. With borax it fuses into a transparent globule. It is gelatinous when treated with nitric or muriatic acid, but is not affected by sulphuric acid without heat. It is found in cavities in amygdaloid, porphyry, syenite, trap, gneiss, and sometimes in veins in clay slate. It was first found by Laumont in 1785 in lead-mines in Huelgoet, Brittany. Its principal localities are the Faroe islands, Greenland, Bohemia, Switzerland, Hartfield moss in Renfrewshire; amygdaloid rocks in Kilpatrick hills, near Glasgow; trap-rocks of Hebrides and north of Ireland; Peter's point, Nova Scotia, fine specimens associated with apophyllite and other hydrous silicates; Phippsburg, Me.; Charlestown quarries, Mass., in gneiss. It is abundant in the trap copper veins on lake Superior, and on the n. shore of lake Superior, between Pigeon bay and Fond du Lac; at Bergen hill, N. J., in greenstone with datholite and apophyllite; and at Columbia bridge near Philadelphia. The change which it ordinarily undergoes on exposure to the air may be prevented by dipping it in a thin solution of gum arabic which prevents the about 2 per cent loss of water.

LAUNAY, EMMANUEL LOUIS, HENRI DE. See **ANTRAIGUES**, *ante*.

LA UNION, a t. in San Salvador, a division of Central America, situated on the w. bank of an inlet called La Union, part of the gulf of Conchagua or Fonseca, on the Pacific coast; pop. 3,000. The waters of the gulf partially separate San Salvador from Honduras. It is in the vicinity of 18 volcanoes, the loftiest of which is Conchagua. 70 m. e.s.e. of the town of San Salvador, and 30 m. w. of the port of Amapala, on the island of Tigre. It is a seaport of considerable importance, with a tonnage of 35,000 annually, an environment of exceptional beauty, but an extremely hot and unhealthy climate.

LAUNITZ, ROBERT EBERHARD, 1803-1870; b. Riga, Russia; studied sculpture under Thorwaldsen in Rome, and emigrated to New York, where he died. Among his works are the battle monument at Frankfort, Ky., the Pulaski monument at Savannah, and the monument to gen. George H. Thomas at Troy, N. Y.

LAURA, a name given to a collection of cells in a desert, differing from a monastery in which the monks all lived together. Each monk in the laura had his own cell, and for five days of the week lived alone, his only food being bread and water. On the other two days the monks all supped in common on broth, and took the sacrament. They were subject to severe rules. A meager diet, silence, and solitude were required. The origin of the name is unknown. The most celebrated lauras mentioned in ecclesiastical history were in Palestine, as the laura of St. Enthymus, 4 or 5 leagues from Jerusalem; the laura of St. Saba, near the brook Kedron; and the laura of the towers near the Jordan.

LAURA. See **PETRARCA**, *ante*.

LAUREL, a co. in s.e. Kentucky, bounded by rivers on all sides but the e.; its western boundary being the Rock Castle river, and its northern and southern other affluents of the Cumberland; about 400 sq.m.; pop. '80, 9,131—9,121 of American birth. Its surface is undulating. It has fine grazing pastures, and extensive tracts of timber. Coal is found in the neighborhood of London. Its soil is fertile and yields average crops of grain and tobacco. Some attention is paid to the raising of stock, and it has a small trade in wool; other products are honey, flax, and sorghum. Seat of justice, London.

LAUREL HILL, a range in s.w. Pennsylvania, dividing the counties of Fayette and Somerset, farther n. those of Westmoreland and Somerset, and still farther n. separating Indiana and Cambria counties. In the s. the range extends over the border into West Virginia, and the chain is broken near that boundary by the Youghiogheny river and the Pittsburgh and Connellsville branch of the Baltimore and Ohio railroad, which crosses the counties of Somerset and Fayette, taking the same course as the river. It contains valuable deposits of bituminous coal easily mined. The chain is a ridge of the Alleghany mountains, passing through a section of country midway between the Connellsville coke region, and the coal district of Myersdale, where capital has been largely invested. Among the forest trees that adorn the mountain side and provide convenient lumber, are beech, elm, ash, hickory, white pine, oak, sugar maple, and wild cherry.

LAUREL RIDGE, in s.w. Pennsylvania, forming the southern portion of Chestnut Ridge, and, beginning at the Youghiogheny river, trends s.w. to the Cheat river in the s.w. extremity of Fayette co., where it rises 2,000 ft. above the level of the sea; thence into West Virginia through the counties of Monongalia, Marion, and Taylor, to the Monongahela river. It contains inexhaustible beds of bituminous coal, and is covered with evergreen and the usual forest trees, including the sugar maple and wild cherry.

LAURENCE, RICHARD, D.C.L., 1760—1838; b. at Bath; graduated at Corpus Christi college, Oxford, in 1782. He entered the ministry of the church of England and preached the Bampton lectures in 1804, after which he became rector of Mersham, Kent. In 1814 he was appointed regius professor of Hebrew and canon of Christ church, Oxford. In 1822 he became archbishop of Cashel, and died in Dublin. It was largely through his influence that oriental studies, long neglected in England, were restored to their rightful place among scholars. It was also through his instrumentality that several interesting apocryphal works, often quoted by the Fathers, but supposed to be lost, were recovered from the Ethiopic manuscripts. Among these were the *Ascension of the Prophet Isaiah*, and the *Book of Enoch the Prophet*. He published a new version of *Fourth Esdras*, also from the Ethiopic; also *Dissertation on the Logos of St. John*; *Critical Reflections on the Unitarian Version of the New Testament*; *On the Existence of the Soul after Death*; and many occasional essays and sermons.

LAURENS, a co. in central Georgia, intersected by the navigable Oconee river, which flowing s. through the county forms its s.e. boundary; about 800 sq.m.; pop. '80, 10,051—10,039 of American birth, 4,352 colored. The Palmetto creek empties into the Oconee river in the central portion. The surface is generally level, and more than half covered with forests of oak, pine, and hickory. The soil has a foundation of limestone and clay, with an upper stratum of sandy loam containing elements of great fertility. Its staple products are wool, sweet potatoes, honey, sugar-cane, and live stock. It had in '70, 520 farms, 13, of 1000 acres and over. Seat of justice, Dublin.

LAURENS, a co. in n.w. South Carolina, has for its n. and n.e. boundary the Ennoree river emptying into the Broad river in the next county, and for its s. and s.w. the Saluda river, which, rising in the Blue Ridge mountains, and taking a south-easterly direction unites with the Broad river at Columbia; about 650 sq.m.; pop. '80, 29,444—29,365 of American birth, 17,666 colored. The Reedy river, an affluent of the Saluda, is mostly included in its limits. The Laurens branch of the Greenville and Columbia railroad terminates at Laurens Court-House. It has an uneven surface and a productive soil. Cash value of farms in '70, \$1,000,789. Value of all farm productions, including betterments and additions to stock in '70, \$1,469,545. Its staple products are barley, oats, corn, wheat, tobacco, cotton and wool, sweet-potatoes, honey, and sugar-cane. Granite is quarried, and among the industries are woolen factories and flour-mills. Seat of justice, Laurens Court-House.

LAURENS, HENRY, 1724—92; b. Charleston, S. C., descended from a family of Huguenots who fled to America after the revocation of the edict of Nantes. He was educated for a mercantile career in Charleston and London, and established a prosperous business, from which he retired rich, and traveled in Europe in 1771, placing his children in England to be educated. His experience of differences with the crown judges on matters of marine law turned his attention at an early period to the exercise of arbitrary power as practiced by the mother country in her relations with the colonies, and of which he became a bitter opponent. Early in 1774 parliament passed the Boston port bill, which closed that port to all commerce, and transferred its privileges to Marblehead and Salem. Laurens was one of about 40 Americans who petitioned parliament against the passage of this bill, most of the petitioners being South Carolinians. This occurred while he was still abroad, and on the petition proving unsuccessful, he returned to Charleston, and identified himself with the patriot cause. He was president of the

council of safety, and president of the continental congress. In 1779 he was sent to Holland, charged with the negotiation of a commercial treaty, but fell into the hands of the British, and being taken to London, was imprisoned in the Tower during 15 months, which completely broke his health. Congress appointed him in 1781 one of the peace commissioners, and on Nov. 30, 1782, he signed the preliminary treaty in Paris, in company with Jay and Franklin. During the latter years of his life he declined all connection with public affairs, on account of his health, and devoted himself to agricultural pursuits. He left an injunction in his will that his remains should be cremated, which was complied with by his heirs. The collections of the South Carolina historical society contain his historical papers, which were collected after his decease.

LAURENS, JOHN, 1753-82; son of Henry, having been liberally educated in England, returned to his home in South Carolina, and in 1777 entered the patriot army, being appointed aide to gen. Washington. In this position many of the duties of a private secretary fell to his lot, and his familiarity with foreign languages enabled him to be of great service in conducting the necessary correspondence constantly occurring with European officers in the service. His military career was distinguished by dauntless bravery, and his conduct at the battles of Brandywine, Germantown, Coosawhatchie, and during the siege of Charleston, was highly commended. Early in 1781 he was sent by Washington on a special mission of appeal to the king of France for aid to the colonies, and succeeded in accomplishing his purpose. At Yorktown it fell to his duty to receive the sword of the commander, Oct. 19, 1781. During the remainder of the war he was with gen. Greene, and having exposed himself during a skirmish on the Combahee river, met with his death, his loss being lamented as among the most serious of the revolution. It is on record that Washington felt keenly the death of one who had been a valuable confidential assistant and a faithful and self-sacrificing friend to him during the many exigencies and dangers of the war. At the battle of Monmouth his intrepidity relieved Washington from imminent peril. He challenged gen. Charles Lee and wounded him in the duel which followed, the cause of his action being a disrespectful reference to Washington on the part of Lee, in the course of his attempt to explain his misconduct at Monmouth. The army correspondence of Laurens was privately printed in 1867 among the publications of the Bradford club (N. Y.). When it is remembered that Laurens was only 29 years of age at his death, it will be recognized that his career was in the highest degree honorable, patriotic, and unselfish.

LAURENTIAN SYSTEM (*ante*). It may be more precisely stated that the Laurentian system of rocks is the lower period of the *ozoic* age, or as it is termed by prof. J. D. Dana, the *archæan* (q.v.), that is, the age of the first appearance of organic life. This archæan age is divided into two periods, the Laurentian beneath and the Huronian above, sometimes called *upper* and *lower* Laurentian. The Huronian lies immediately beneath the Cambrian system or age of Sedgwick. The Laurentian rocks proper, or lower Laurentian, are composed chiefly of primitive gneiss, and have been subjected to more change (metamorphism) than any other rocks, unless it be a fact that granite, now called primary, is really derived from stratified rock by igneous action. The Huronian or upper Laurentian rocks are, to a considerable extent, crystalline schists, much less compact than the (lower) Laurentian gneiss, whose strata are also much more convoluted than those of the Huronian. Both together form a series of rocks which in Canada have a thickness of 40,000 ft., passing into gneiss and granite downwards, and upwards into hornblende gneiss, syenites, diorites, and limestones, the latter being metamorphosed into marbles.

The immense beds of iron ore in the Laurentian rocks are considered as evidence of abundant organic life during that age (see METAMORPHIC ROCKS, *ante*), as also are the great beds of graphite (q.v.). In addition to these evidences, there have been found in the Laurentian limestones of Canada, Bohemia, and other countries, large, irregular, cellular masses, which are regarded as the remains of gigantic rhizopods, and the supposed species has been called *ozoön Canadense* (q.v.).

LAURENTIUS, SAINT. See LAWRENCE, SAINT, *ante*.

LAURENTUM, a t. in ancient Italy, the capital of Latium, about 16 m. below Ostia. It was a maritime city of importance, and its name appeared in the first treaties between Rome and Carthage, as is recorded in Polybius. After the defeat of the Latin league at lake Regillus, it fell into decay, and was deserted and left in ruins. It was, however, subsequently restored, and a new city formed by the union of Laurentum and Lavinium, which was known as Lauro-Lavinium. The ancient city was renowned for its groves of laurel, and was frequented by the Roman nobles in winter as a place of fashionable suburban resort. Hither the emperor Commodus was ordered by his physician; Scipio and Lælius are said to have gone thither frequently for recreation after the cares of business; and Pliny the younger describes with minuteness his beautiful villa at Laurentum. Hortensius, the orator, the rival of Cicero, was also one of those who possessed villas in that neighborhood.

LAURIC ACID, also called LAUROSTEARIC, and PICHURIC ACID, a fatty acid first described by Marsson in 1842. It occurs as a glyceride, laurostearine, in the fat of the bay tree, and in the solid fat and volatile oil of pichurim beans. It also occurs in

connection with myristic acid in *myrica cerifera*, and other plants. It also exists in connection with other fatty acids or their glycerides in spermaceti, and in coconut oil. It is separated from the mixtures of fatty acids by saponifying them with caustic alkaline solutions, and decomposing the soaps thus formed by hydrochloric or tartaric acids. Lauric acid is insoluble in water, but is readily soluble in alcohol and ether, and crystallizes from the alcoholic solution in white, silky needles, or translucent scales which melt at about 109.4° Fahr. The laurates of the alkali metals and of barium are soluble in water. The other salts are insoluble, or sparingly so. The calcium salt is decomposed by distillation into carbonate of lime and laurostearone, $\text{Ca}, 2\text{C}_{12}\text{H}_{23}\text{O}_2 = \text{CaO}, \text{CO}_2 + \text{C}_{23}\text{H}_{46}\text{O}$.

LAURISTON, JACQUES ALEXANDRE BERNARD LAW, Marquis de, 1768-1828; b. India; was educated with Napoleon I. at a military school in Paris. He was a descendant of the brother of the celebrated John Law of Lauriston, the author of the "Mississippi scheme." Entering the French army while quite young, he was befriended by Napoleon, who made him his aid-de-camp, and aided him to rise in his profession. He was employed in the conduct of many important missions, and exhibited much skill as a diplomatist. He was also a brave and successful commander, was engaged in every campaign of the French armies in Germany, Spain, and Russia, and decided the victory of Wagram at a most critical moment. The Austrians were holding an advantageous position; the left wing of the French under Massena had been driven back with great fury; the right wing under Davoust was being severely pressed, and hardly maintaining its ground; when Lauriston, at the head of 100 pieces of artillery, came up at full trot and attacked the enemy's center, producing a diversion which resulted in victory. At the conclusion of peace, he received the grand cordon of the legion of honor from Louis XVIII. In 1817 he was created a marquis, and four years later was made a marshal of France.

LAURIUM, a promontory in s.e. Attica, a division of Greece, bordering on the Ægean sea, celebrated for its mines of silver, zinc, and antimony, which in the time of Herodotus yielded a considerable profit to the Athenians who shared it. According to Xenophon, they were worked by shafts and drifting with the use of imported timber; pillars of the ore being left to support the mountain. It is mentioned that a particularly noxious vapor rose from the mines. In Strabo's time they had begun to extract silver from the old scoriæ, which floated upon the surface of the metal when fused, and which has been used in the harbors for various building purposes. The same process of procuring silver is being carried on at the present day, and the scoriæ yield 10 per cent of argentiferous lead. In 1863 a Marseilles company reopened the mines, and in 1871-72 they were a subject of controversy in France and Italy with the Greek government, which was settled in 1873, and they are now worked by a company belonging to their own government. It is a lofty and steep hill crowned by a thick growth of pine trees. Marble is found in large quantities, and the country abounds in lead ore.

LAUZUN, ANTONIN NOMPARE DE CAUMONT, Duc de, 1633-1743; b. France; a notorious adventurer and a favorite for a time of Louis XIV. Born a poor nobleman in Gascony, he possessed all the peculiar Gascon traits of energy, shrewdness, unbounded effrontery, and recklessness. He was courtly in his manners, witty, and attractive to the fair sex. His exploits and adventures were romantic; though many of them, resting on no broader foundation of testimony than his own word, have been judged apocryphal by historians on the ground of the boastful and mendacious character of their alleged hero. Appointed by the king governor of Berri, and mareschal de camp, and promised the grade of grand master of artillery, Lauzun was sufficiently indiscreet to boast of the favors of Louis, a course which speedily placed him in disgrace. He was committed to the Bastille by order of the king, but the latter soon repented his severity, and Lauzun was restored to favor, being even promised the hand in marriage of Mlle. de Montpensier, granddaughter of Henry IV. This marriage was prevented, however, by court intrigues; and to reconcile him to the disappointment the king made Lauzun commander of the French army in Flanders. It has been asserted by some contemporary writers that this marriage was actually though secretly effected. Lauzun was at length so unfortunate as to offend Mme. de Montespan, at the time all-powerful with the king, and, through her influence, he was again cast into prison, and this time to remain for several years. He finally gained his liberty, as is stated, through the intercession of Mlle. de Montpensier; and, repairing to England in 1688, was commissioned by James II. to escort the queen and her infant son to France on the outbreak of the revolution. Lauzun, in 1695, at the age of 62, married Mlle. de Durford, a girl of 16 years, Mlle. de Montpensier having died two years before.

LAUZUN, ARMAND LOUIS DE GONTAUT, Duc de, 1747-93; b. Paris; commanded a naval expedition against England in 1779, and took part in the American war, 1780-83. He succeeded to the title of duc de Biron, was a deputy to the states-general, and a confidant and secret agent of the duke of Orleans. He was general-in-chief of the army of the Rhine in 1792, and of the army of La Rochelle in 1793. After taking Saumur and defeating the Vendéans at Parthenay, he resigned; but being accused before the committee of public safety of having been too lenient in his treatment of the Vendéans, he was deposed, imprisoned, tried before the revolutionary tribunal for conspiracy, con-

demned Dec. 31, 1793, and executed the same day. His ability was undoubted, but he was dissolute and unscrupulous.

LAVA BEDS. See MODOCS.

LAVACA, a co. in s.e. Texas, watered by numerous little streams, and the Lavaca and Navidad rivers emptying into Lavaca bay and thence into the gulf of Mexico; about 970 sq. m.; pop. '80, 13,642—12,038 of American birth, 3,426 colored. It is divided into fertile prairies and small tracts of timber land. The soil is adapted to the production of cotton, rice, corn, tobacco, wool, sweet potatoes, and sorghum. Good building timber of ash and oak is found in the groves. The product of its orchards is among the finest in that region, and beef is exported, canned and in bulk. Number of farms in 1870, 905; over 1000 acres, 1. Cash value of farms in 1870, \$1,025,101. The Galveston, Harrisburg and San Antonio railroad crosses the extreme northern section. Seat of justice, Hallettsville.

LAVAL, a co. of the province of Quebec, Canada; pop. 9,472. It consists exclusively of the isle Jésus, 23 m. long and 6 m. broad, lying between the Ottawa river and the Rivière des Prairies.

LAVAL-MONTMORENCY, FRANÇOIS XAVIER DE, 1622—1708; was made a priest at the age of 23 years, and 6 years later was named missionary-bishop of Cochinchina. He declined the office, however, and in 1653 was appointed arch-deacon of Evreux. In 1659 he was sent to Canada, bearing the titles of vicar-apostolic of New France and bishop of *Petræa in partibus*, that he might successfully enforce his authority in that country, where the archbishop of Rouen was arrogating supremacy to himself. He established the seminary of Quebec, under letters-patent of Louis XIV., and being actually the civil as well as ecclesiastical ruler, directed social conduct in the interest of propriety and morals, particularly enforcing the most stringent enactments in favor of temperance and against the sale of intoxicating liquors to Indians, which was at this period a crying evil. In 1674 he became titular bishop of Quebec, an office which he held until 1688, when he resigned it and devoted himself thereafter to the conduct of the affairs of the seminary. His religious enthusiasm, his force of character, and his unblemished life made him universally respected, and his name is remembered in Quebec in the Laval university, formerly the seminary to which he devoted a great part of his life and property, and which in 1854 was raised by the queen of England to its present grade.

LAVA ORNAMENTS, the name given to trinkets, charms, and other small articles manufactured from volcanic slag, or lava, which is melted up and applied to such designs and purposes as are favorable to the use of the material.

LAVELEYE, ÉMILE LOUIS VICTOR DE, b. Bruges, 1822; a Belgian writer, politician, and author of historical studies connected with political economy. His studies were completed in Paris. In 1848 he was a frequent contributor to French reviews, and a defender of the revolutionary liberalism of that year. In 1858 he became one of the editors of the *Revue de Deux-Mondes*, enriching it with articles of remarkable ability. He was subsequently made professor of political economy in the university of Liege; a member of the international jury at Paris in 1867; and a corresponding member of the academy of moral and political sciences of Paris. The list of his published works indicates a wide range of studies. The last, *Essai sur les Formes de Gouvernement dans les Sociétés Modernes*, 1872, is one of the most notable.

LAVINIUM, an ancient city of Latium, 17 m. s. of Rome, founded by Æneas and named in honor of his wife Lavinia. It was between Laurentum and Ardea. In the time of Trajan it united with Laurentum under the name of Lauro-Lavinium, and for a few years was important as the capital of Latium and as the religious center of the Latin cities in opposition to the claims of Alba, but held its political importance for no long period. It is now called *Pratica*.

LAVOISIER, ANTOINE LAURENT (*ante*), the son of a rich merchant, had the advantages of a very liberal early training. He studied astronomy with La Caille, chemistry with Rouelle, and was a pupil of the celebrated botanist Jussieu. At the age of 23 he won the prize of the academy of sciences by his *Mémoire sur la Meilleure Manière d'éclairer les Rues d'une Grande Ville*. This, and his *Mémoire sur les Conches des Montagnes* procured his admission to the academy of sciences. He was elected in 1787 to the provincial assembly of Orleans. He was appointed one of the trustees of the bank of discount in 1788, and made an admirable report upon the condition of that institution in 1789, as assistant deputy of the constituent assembly. In 1790, as a member of the commission on weights and measures, he was active in the preparation of the new decimal system. In 1791, as one of the commissioners of the treasury, he published his essay *De la Richesse Nationale de la France*, a paper which made him take rank as one of the first political economists of the age. But chemistry was the absorbing subject of his life, and he pursued it for nearly a quarter of a century, living only to the age of 51. He wrote many essays and memoirs, but his greatest work is his *Traité Élémentaire de Chimie* (2 vols. 8vo, 1789). It is to Lavoisier that chemistry owes its first well-founded scientific steps. His adoption of the method of weighing chemical constituents led to the overthrow of the phlogiston theory, which was one of the great stumbling-blocks in the way of advancement. The increase in weight of a metal when oxidized had, indeed, been known by

Stahl, but it had been attributed to other causes than that of combination with oxygen. It is a remarkable fact that the discoverer of oxygen, Priestley, was the last adherent of the phlogiston theory, while his discovered element was one of the most potent arguments against this theory in the hands of Lavoisier. The discovery by Cavendish that hydrogen when burned forms water furnished Lavoisier with an explanation of the solution of metals in acids. He saw at once that water was in this operation decomposed, the hydrogen being liberated, but the oxygen, the other element, uniting with the element to form an oxide. One of Lavoisier's most important works was, in conjunction with Guyton de Morveau, Berthollet, and Fourcroy, to devise a system of chemical nomenclature, a work which was commenced by Guyton de Morveau.

LAW (*ante*). This is a word in extensive use in regard to divine and human law, as well as to that which has received the name of natural law. There are differences of opinion as to what should always be considered divine law, and volumes have been written embracing subjects related to it, as well as those which relate to human laws, in connection with the question of the validity, and therefore the reality, of human laws unless founded upon divine law. The origin of the word law is Anglo-Saxon, *lag*, from *leegan*, to lay, and signifies to found, to lay down, to establish, or to ordain. Therefore there are philosophers who maintain that laws, strictly considered, are those only which have been laid down, or that they are commands relating to rules of action, and that they must proceed from authority. They maintain that it is not sufficient that there should be uniformity of phenomena for such uniformity to be called by the name of law; consequently the ordinary phenomena of nature are regarded by such thinkers as *invariable phenomena so far as experience goes*, but which may cease at any moment. This is, however, a rather exceptional view, most philosophers, even of the religious school, regarding the invariableness of natural phenomena as warranting the conclusion that such invariableness has been established or ordained by the Creator, and although it be admitted that these phenomena may cease at any moment, they would only cease by the abrogation of the natural law, which may be held as only unwritten divine law. As an illustration of a natural law, there may be instanced the invariableness of the phenomena of chemical combination, the constituents of all bodies entering into their formation in definite proportions or multiples of such proportions. When sulphuric acid, water, and carbonate of lime are placed together, there is produced a definite quantity of hydrated sulphate of lime, and the liberation of a certain quantity of carbonic acid gas, depending upon the proportion of the original materials. The hydrated sulphate of lime will also have definite quantities of sulphuric acid, calcium, and water, and the carbonic acid gas will have invariable relative quantities of carbon and oxygen. The invariableness with which bodies move through space under definite circumstances has resulted in the recognition of certain laws called laws of motion, and which have as their basis the law of gravitation. Connected with these are the laws of hydrostatics and of cohesion. A great number of facts have been discovered relating to the phenomena of magnetic and electrical attraction, which, from their invariableness, have been called magnetic and electrical laws. Some philosophers maintain that these laws are inherent properties of matter, others that they are dependent upon external power, but both schools regard them as laws, and as having equal importance in whichever light they are viewed. Advancing from the laws which belong to what is commonly called inanimate matter to those which belong to living matter, it is held by some philosophers that those which regulate chemical phenomena also govern vital phenomena, and that vitality is the result of the action of the general laws of analysis and synthesis of all matter, and that all organized beings are the result of natural or physical law, which physical law is inherent in matter itself. Another class of philosophers do not go so far as to deny the agency of divine power in the formation of the organic world, but nevertheless maintain that whatever divine power has been manifested was in the beginning, in the establishment of certain properties pertaining to matter which are termed laws; that creation was accomplished in this way and no other; and that the Creator has not worked by any process of continuous design or action. Again there are other philosophers who maintain that because there are evidences of design in creation it would be unreasonable to believe that God has left the development of living beings to be accomplished by the meeting of unalterable law with accidentally distributed matter. They therefore regard the phenomena of chemical affinity and of vitality as taking place in accordance with separate laws, and that when ascending from ordinary vital action to that of sensation still different laws are involved; and in again ascending from the mere phenomena of sensation to that of thought, still other and higher laws, and such as are beyond the sphere of exact scientific determination, or perhaps of investigation, are involved.

LAW, CANON. See **CANON LAW**, *ante*.

LAW, CIVIL, or ROMAN. The codification and collection of this law by Justinian became the basis of the system of private law still administered on the continent of Europe, in Scotland, in Mexico and all the Spanish-American republics, and in Louisiana. The researches of Savigny have shown that the civil law was never entirely lost in Europe as has been supposed. The Germanic tribes which, in the 5th c., invaded and conquered Spain, Italy, and Gaul, continued to be governed by the body of cus-

tomary Germanic law which they brought with them, but allowed the conquered peoples to make profession (*professio*) as to which law they would be governed by, Germanic or Roman. In the 12th c. the university of Bologna became the great law-school of Europe, and the studies of the commentators there increased the influence of the civil law, not only in Italy, but throughout Europe. In southern France the proportion of Germanic immigrants was small, and the civil law prevailed. In northern France the Germanic element was stronger, and in each province its own traditional law or custom was administered, as "the custom of Normandy," "the custom of Anjou," etc. Hence northern France was called the country of customary law, *pays de coutume*, and southern France the country of the written law, *pays de droit écrit*. In the countries which composed the Holy Roman empire, the German emperors, who claimed to be the successors of the Cæsars, encouraged the growth of the civil law. In England, though the civil law failed to supplant that body of customary law known as the common law, it had a great influence. The ecclesiastical, a branch of the civil law, had the exclusive control of matters of marriage and divorce. Equity, which has afforded relief for so many technicalities or deficiencies of the old common law, is the product of the civil law, and the chancellor for a long period was an ecclesiastic, bred to the civil and canon law. The common law was largely real property law, and originated in a time when property consisted almost exclusively of land. With the growth of commerce and trade the law of personal property assumed a corresponding importance, and was forced to borrow much, particularly in the departments of commercial and maritime law, from the civil law. The expression *jus civile*, of which civil law is a translation, was used by the Romans in a more restricted sense of the rights peculiar to the citizen by the law of the city or state (*civitas*), as distinguished from the law relating to rights which are recognized by the law and usage of all nations (*jus gentium*). The Roman public law has little but historical interest; the private law demands consideration.

A man's condition and relation with reference to his legal rights constitute his *status* at the civil law. This status consists of personal freedom (*libertas*), citizenship (*civitas*), and control of family (*familia*). Hence men are divided into (1) freemen, *liberi ingenue*; and slaves, *servi*. The power of the master over the slave, which in the earlier ages had been absolute, was afterwards greatly restricted. A slave could receive his liberty by will, by enrollment among freemen in the census, or by a fictitious suit. (2) Citizens, *cives*; and *peregrini*, aliens; the disabilities of the latter, chiefly in the matters of trade and marriage, belong to the domain of public law. (3) Persons of full control, *sui juris*, and persons under the control of others, *alieni juris*. A remarkable feature of the civil law was the power of the father, *patria potestas*, over the person and property of his children and their descendants, except the descendants of a married daughter, who would belong to another family. This power of the head of the family, *paterfamilias*, was such that even in the latest times a man, whatever his age or services, could own no property during the life of his father, save what he might have acquired in war. His father had the use of his son's property during his own life. On the contrary, a boy of the age of 14 years who had no father living was *sui juris*, and could marry, contract, etc. An important division of the family should be mentioned here, that into *cognates* and *agnates*. Cognates are persons united by the same blood or, as in cases of adoption, reputed so to be. Agnates are such relations by blood as can trace descent from a common ancestor to whose paternal power they would be subject. Marriages were not required to be celebrated by any form, and extreme latitude of divorce was allowed, but this was checked by the ecclesiastical courts. Gifts between husband and wife were revocable until the death of the donor, but were good when so limited or upon divorce. It was customary for the wife or her relations to make a gift, *dos*, to the husband upon marriage, and such gift had to be restored upon the death of the wife or her divorce where the husband was the guilty party. And similar settlements could be made by the husband for the maintenance of children by the marriage. An infant under 7 years, whose father was dead, must be put under guardianship, *tutela*, and was conclusively presumed to be incapable of contracting. From the age of 7 to 14 his acts must be ratified by his guardian, but after 14 he was deemed liable for his acts and on his contracts. The age of majority in such cases was afterwards fixed at 25, and the law would interfere to avoid contracts made by the minor where they were manifestly to his disadvantage.

As to rights in things, *jura in res*, the Romans divided things according to their origin into corporeal things, *res corporales*; and incorporeal things, *res incorporales*, such as a right of use, of inheritance, etc. Again, with regard to their sacred or secular use, things were divided into things of pious use, *res divini juris*, and things of human use, *res humani juris*. Things for pious use include *res sacræ*; things dedicated to the gods, as a temple, *res religiosæ*; things appropriated to the lower gods, as a tomb. Things of human use include private things, *res private*, and public things, *res publica*. In regard to their nature things are divided into movable and immovable, *res mobiles* and *res immobiles*. Ownership of things, *dominium*, may be created by occupation, or taking possession of what has not or never had an owner, as treasure-trove; by specification, *specificatio*, where a new article is made from an old; by mixture of one article with another in such a way that they cannot be restored to their former condition, etc. Ownership may also be secured by undisputed

adverse use of property in good faith. Under Justinian such use had to continue for 3 years in the case of movables, and 10 years in the case of immovables, to be a bar to the claim of the original owner. Connected with the ownership of property are sometimes certain rights, *jura in re*, or easements, which give one of two contiguous estates certain privileges in regard to the other, as a right of way, a right of drawing water, etc. But such rights run with the estate, and can impose upon the owner of the servient estate no liability to do any act. There may be also a personal servitude by which one person has the beneficial use of certain property for a term of years or for life.

In the law of obligations, all obligations are said to arise from contract, *ex contractu*, or from wrong, *ex delicto*. Of obligations from contract are verbal contracts or stipulations, written contracts; *mutuum*, a loan to be returned with interest; *commodatum*, a loan for use; *depositum*, where the article is not to be used by the bailee. Grouped together as contracts by agreement are the following: (1) Buying and selling, *emptio, venditio*, where the seller agrees to put the buyer in possession of certain property, and the buyer agrees to pay a certain sum therefor; (2) hiring and letting, *locatio, conductio*, where the letter agrees to give the hirer the use of certain property and the hirer agrees to pay a certain sum therefor; (3) agreement to hold property, in common for certain purposes, *societas*; this may be an unlimited partnership, *societas totorum bonorum*; or limited to a single business, *societas alienius negotiationis*; (4) *mandatum*, an agreement by one party to execute a commission for another party without consideration; a consideration may be given in some other way, but does not appear from the form of contract. This contract was frequently used by parties unable or unwilling to prosecute a suit at law, who would give a mandate to some other person to act as procurator and prosecute the suit for them. Obligations *ex delicto* arise where persons guilty of crime are also civilly liable for damages. Thus a person guilty of larceny, *furtum*, must restore the stolen property or its value and pay a penalty of twice its value, or of four times its value if he were caught in the act. Robbery with violence, *rapina*, was civilly punished with a fine of four times the property, but this included the value of the property taken. Injury to property, *damnum injuriæ datum*, entitled its owner to receive from the wrong-doer the highest price the property would have brought 30 days before the injury, or 12 months before in the case of a slave. Inheritance was based by Justinian on cognation, and the heirs took in the following order: (1) Lineal descendants, sons and daughters equally and the children of deceased children by representation; (2) lineal ascendants, with representation of children of deceased brother or sister; (3) children of the half blood with representation; (4) blood relations, nearer preferred to more remote, but those of same degree sharing equally. An heir by the will was bound to pay debts and legacies, but the legacies fell if the heir refused to accept the inheritance. Finally, after various restrictions on the amount of legacies, the heir was allowed by law one-fourth of the net value of the estate of the decedent, so that the legatees could receive but three-fourths, and in case of a falling off, their shares were proportionately reduced. Wills required 5 to 7 witnesses, though they could be made verbally according to certain ceremonies. To make provision for persons incapable of taking a legacy at law, reliance was placed upon the good faith of the heir, and later a special magistrate was appointed to take cognizance of trusts of this description. A slave could not take save by consent of his master; but a slave made heir by his master was adjudged free, though the will contained no directions for his manumission. A testator could not disinherit a child without making distinct reference to him in the will, and a disinherited child who could show that he had committed no offense against his father could come in for one-fourth of what his inheritance would be if his father had died intestate.

In regard to jurisdiction and procedure little can here be said. In the time of the Christian emperors the municipal and local magistrates had jurisdiction in small matters up to a certain amount; and there was a class of petty magistrates appointed by the emperor, and called *judices pedanei*, whose functions are not clear. There was a special system of courts at Rome, Constantinople, and Alexandria. Appeal lay to the president of the province, to the delegates or vicar of the prefect, to the prefect, and in the last resort to the emperor himself. The army and the clergy were subject to the military and ecclesiastical courts. The plaintiff lodged a complaint against the defendant with the clerk of the proper magistrate, who informed the defendant. The term civil law is sometimes used as the opposite of criminal law. See CODE, JUSTINIANUS, PANDECTS, *ante*.

LAW, COMMERCIAL. See MERCANTILE LAW, *ante*.

LAW, CRIMINAL, that department of jurisprudence which treats of violations of public law. Crimes or punishable offenses against the public are divided into treasons, felonies, and misdemeanors—any offense inferior in degree to a felony being a misdemeanor. Offenses are further distinguished as such in themselves, *mala in se*, i.e., offenses regarded by the general moral sentiment of the community as notoriously immoral and injurious to the public; and as offenses by statute, *mala prohibita*, i.e., acts which are made offenses by enactment, but which in the absence of statutory prohibition would not be wrong or immoral. The criminal law regards certain persons, whose reason or will is deficient or subjected to constraint by others, as incapable of

committing criminal acts. Lunacy or idiocy will be a sufficient excuse, but the accused is presumed to be of sound mind till the contrary is shown. An infant, from birth up to the age of seven, is conclusively presumed incapable of crime; from seven to fourteen there is still a presumption in his favor, though not conclusive, but rebuttable; after the age of fourteen he is presumed to be capable, and the burden of proof lies upon him to show that he is not. Drunkenness, though it may sometimes have a bearing on the question of intent, is no excuse for criminal acts committed during intoxication or as its immediate result; but it is otherwise where continued habits of drunkenness are the more or less proximate cause of insanity. A married woman, acting by the command and under the coercion of her husband, will not be responsible; but such coercion must be shown and will not be presumed from the mere presence of the husband. Duress, actual physical constraint, or extreme bodily fear, caused by acts or threats of violence, will sometimes excuse an otherwise criminal act. In such a case the degree of violence must be such as would exercise a constraint upon a reasonable and prudent man. Acts which are the result of mistake or inevitable necessity, and to which consequently intent is wanting, will be excused, but ignorance or mistake as to the law will not excuse.

Rights of the accused.—By the constitution of the United States the accused has a right to be informed of the nature and cause of the accusation against him and to be confronted with the witnesses against him. The prisoner cannot be brought to trial till a grand jury has found a true bill against him; he is then entitled to a trial by an impartial jury of his peers, whose finding upon matters of fact is conclusive. The criminal law presumes the accused to be innocent till his guilt is established, and in passing upon his guilt or innocence the jury cannot bring in a verdict of guilty upon such evidence as would justify a verdict for or against a party in a civil suit. In the latter a jury renders a verdict for the party in whose favor there is a preponderance of evidence; in a criminal cause a verdict of guilty is not justifiable unless the minds of the jurymen are satisfied beyond a reasonable doubt of the guilt of the accused. The accused cannot be compelled to criminate himself, nor can his general character and habits be examined at the trial to show the probability of his guilt. No person can be punished for an act which has been made an offense by a law subsequent to the commission of the act, nor can any person be twice put in jeopardy of life or limb for the same offense. The old rule of the criminal law prohibiting the accused from testifying in his own behalf has been abolished in many states of the union, and the change on the whole has worked well. The criminal law distinguishes criminals according to the degree of their participation as principals and accessories. A principal is the person who immediately commits the unlawful act; a principal in the second degree is a person who did not immediately commit the act, but who was present at its commission, aiding and abetting it. A principal in the second degree need not be actually, but only constructively present. It is sufficient that by arrangement with the principal he is in a position where he can help in the commission of the act. An accessory before the fact is one who procures another to commit a felony without being himself present at its commission. There can be no accessories to treason on account of its heinousness, to manslaughter on account of its suddenness, or to misdemeanors. An accessory before the fact is equally guilty with the principal of the act committed by the principal at his instigation; but if the principal, being procured by the accessory to commit a certain crime, commit another and different crime not a natural consequence of the former, the accessory to the first act will not be held accessory to the second. Thus, if one procure another to commit burglary, and the principal commit the totally different crime of arson, the first person will not be liable as an accessory to the arson. An accessory after the fact is one who gives aid and comfort to a felon after the felony, knowing him to have committed it. But a wife is not such accessory for receiving and aiding her husband guilty of felony. As an accessory is not guilty unless his principal be guilty, he cannot be tried unless his principal have been convicted; but, even if his principal have been convicted, the accessory may still dispute his principal's guilt at his own trial.

The various offenses of which the criminal law takes cognizance may be classified as follows: 1. Offenses against the sovereign or state: treason, misprision of treason. 2. Offenses against the public or the persons and property of individuals: conspiracy. 3. Offenses against the persons of individuals: abduction, assault and battery, attempts to commit homicide, false imprisonment, homicide, kidnaping, mayhem, rape, robbery. 4. Offenses against the property of individuals: arson, burglary, embezzlement, false pretenses, larceny, malicious mischief. 5. Offenses against public property. 6. Offenses against public justice: barratry, bribery, champerty, compounding of felony, contempt of court, destruction of public records, escape, extortion, jail-breach, maintenance, oppression, perjury, resistance to officers, suppression of evidence. 7. Offenses against the public peace: breach of the peace, challenging to a duel, libel, riot, rout, unlawful assembly. 8. Offenses against public policy: counterfeiting, false currency, forgery, gambling, lotteries, nuisance, violation of suffrage laws, violation of game laws. 9. Offenses against public morality: adultery, bestiality, bigamy, blasphemy, cruelty to animals, drunkenness, fornication, incest, keeping house of ill-fame, obscenity, profanity, sabbath-breaking, seduction, sodomy. See the articles on these offenses, and further, CRIME; CAPITAL PUNISHMENT; PROSECUTION; *ante*.

LAW, EDMUND, D.D., 1703-87; b. near Cartmel, Lancashire; graduated at St. John's college, Cambridge, in 1723, and was at once appointed to a fellowship. In the same year he was appointed rector of Graystock in Cumberland, in 1743 archdeacon of Carlisle, and in 1754 master of Peterhouse college, Cambridge. Subsequently he became librarian of the university, professor of casuistry, and archdeacon of Lincoln. In 1767 he was chosen prebendary of Durham, and in 1768 became bishop of Carlisle. He was a learned and liberal prelate, and one of the acutest metaphysicians of his time. Among his works were a translation from the Latin, with extensive notes, of archbishop King's *Essay on the Origin of Evil*; an *Enquiry into the Ideas of Space and Time*; *Considerations on the Theory of Religion*; and *Reflections on the Life and Character of Christ*. He also wrote a biography of John Locke, which was appended to an edition of the works of that great philosopher. One of his sons was the first lord Ellenborough, and two others were bishops of the national church.

LAW, EDWARD, Lord ELLENBOROUGH. See **ELLENBOROUGH, EARL OF**, *ante*.

LAW, FEUDAL. See **FEUDAL SYSTEM**, *ante*.

LAW, FOREIGN. See **FOREIGN COURTS**, *ante*.

LAW, MUNICIPAL, is the law or system of law by which a particular country is governed. The municipal law of the continental nations is based upon the civil law; that of England and the United States is made up of common law and statute law. The common law is composed of immemorial usages and customs which have not been sanctioned by any legislative acts. Such customs are either general, i.e., adopted throughout the whole country, or particular, i.e., restricted and peculiar to one district. Instances of general customs are: "Inheritance never ascends," "The burden of proof is on the plaintiff," "Buildings pass by a grant of the land," etc. The common law is in theory an unwritten law, though the decisions of the courts in which that law is declared may appear in written or printed reports. The report of a particular case is not regarded as the law, but as a written statement, applicable to the facts of that case, of a principle of law which is in theory never written. Statute law, the other component of municipal law, is that law which is established by act of legislature. See **STATUTE**. In the United States, except Louisiana, the common law, and generally speaking the English statute law up to the time of the separation of the colonies from England, are the foundation of municipal law, and are so declared in many state constitutions. As each state has its own courts, with power to give their own independent interpretation to the law, and its own body of statute law enlarging or restraining the operation of the common law, there is no proper United States municipal law. The systems of municipal law in the several states do not, however, greatly differ, except in details. Municipal law as the law of a particular state is opposed to international law, and the municipal law of one country is foreign law in the courts of any other country. The divisions of municipal law are named according to the subjects of which they treat; thus, criminal law, military law, etc. See **FOREIGN LAW**, **LAW CRIMINAL**, etc.

LAW, RICHARD, LL.D., 1733-1806; b. Milford, Conn.; son of governor Jonathan; graduated at Yale in 1751; studied law and settled in New London. He was a delegate to the continental congress in 1777-78 and in 1781-84. For more than 20 years he was mayor of New London, also successively a justice and chief-justice of the state supreme court, and judge of the district court of the United States by the appointment of Washington. He assisted Roger Sherman in revising the laws of Connecticut. Died at New London.

LAWES, HENRY, about 1600-62; b. at Salisbury, England; a pupil of John Cooper, and in 1625 was connected with the royal chapel of Charles I., after which he gained celebrity as a composer of music for masques and songs. It was under his personal direction that Milton's *Masque of Comus* was set to music and produced at Ludlow castle in 1634. Milton, who was probably his pupil in music, refers to him in highly eulogistic terms in several of his poems. He popularized the songs of Waller, Herrick, and Phillips, who showed high appreciation of his labors. He composed the anthem for the coronation of Charles II., and in 1653 published *Ayres and Dialogues, for One, Two, and Three Voices*. Died in London, and was buried in Westminster abbey. An elder brother, **WILLIAM LAWES**, was also attached as a musician to the royal chapel, and was associated with him in some of his musical undertakings. This brother, who was killed at the siege of Chester, composed the music for Sandys's version of the Psalms in 1648.

LAW-MERCHANT (*ante*), a system of law consisting largely of the usages of trade, and applied by courts to the contracts and dealings of persons engaged in mercantile business of any kind. Blackstone classifies it as one of the "customs" of England, and so a part of the common law; but it is not properly a custom, as it is not restricted to a single community, and is not a part of the municipal law of a single country, but regulates commercial contracts in all civilized countries. The body of mercantile usages which compose this branch of law, having no dependence upon locality, does not need to be established by witnesses, but judges are bound to take official notice of it. The principal branches of the law-merchant are the law of shipping, the law of marine insurance, the law of sales, and the law of bills and notes. The feudal law, which

grew up in a time when property consisted chiefly of land upon whose alienation great restraints were laid, was found inadequate for the needs of the mercantile classes who were coming into prominence. The courts, when commercial contracts were brought before them, adopted from merchants the rules which regulated their business dealings and made them rules of law. Many of these rules were in direct contradiction to the common law. Magna Charta contained a special provision guaranteeing to merchants, among other things, the right "to buy and sell according to their ancient customs," and many later statutes were enacted for their special protection. As the custom of merchants began to encroach upon the common law, there was a determined effort on the part of lawyers to resist it. It was attempted to make the custom of merchants a particular custom, peculiar to a single community, and not a part of the law of the land. It was finally decided, in the reign of James I., to be part of the law of the realm. An attempt was then made to restrict the application of the law-merchant to persons who were actually merchants, but the courts, after considerable variance, held that it applied to the same contracts between parties not merchants.

LAWN, from the old English *lawnd*, signifying an open space between woods. The word is now used to designate grass kept closely cut or fed so as to form a plush-like carpet, and generally applied to the well-kept grass which forms the ground surface for decorative gardening. F. J. Scott, in his work on *Home Grounds*, defines a lawn as "a close-fitting green robe thrown over smoothed surfaces of the earth, through which every undulation is revealed, and over which the sunlight will rest as upon velvet, and shadows of objects be clearly outlined as upon a floor."

American writers formerly supposed the perfection of English lawns unattainable in the United States. This is a mistake. No finer lawns can be found than in the suburban homes and parks of our cities. It was principally lack of attention to them, and not fault of climate, that formerly made the comparison unfavorable to the United States. Yet the longer droughts to which this country is subject give the British islands a short advantage in summer, and their milder winters leave their lawns greener and less covered by snows. The great heat of our summers, however, which writers have alluded to as hurtful to grass, is hurtful only when moisture fails. We have never seen more velvety turf in England than in this country on a sandy loam in times of intense and prolonged heat and drought, but where daily water by hose at night supplied the required moisture. The three essentials for a velvety lawn are: First, a rich soil in which neither clay nor gravel and sand are largely predominant. A pure rich clay dries and bakes too quickly, and an excess of moisture upon it prepares it to dry and crack the more quickly afterwards. An open gravelly soil dries quickly, and does not give sufficient food for the grass roots at the surface. Compact sandy soils, which contain clay, but not enough to make them sticky after a rain, are best of all. An abundance of vegetable and animal manure in any of these soils is as essential to the permanent beauty of a lawn as to the growth of a corn crop. The second requirement to perfect a lawn is, incessant grazing or cutting. The admirable lawn-cutters now in universal use have taken the place of the manual labor that made England's lawns so beautiful, and served to prove that labor, and not climate, was what our lawns lacked. Lawns should be cut in May and June about once a week, with longer intermission in the driest and hottest part of the summer. A few years since it was supposed that the short tips of grass which the lawn cutters remove could be left to drop into it, to enrich the surface by its decay, as it at once falls out of sight and is covered by the fresh growth. But experience has shown that frequent cutting soon leaves such a thick film of these decaying leaves at the roots, that it molds, smothers the grass, and finally kills it. Dead patches are frequently seen in lawns once beautiful that are caused by slow deposits of this kind. In the fall, just before a top-dressing of manure, or in the spring, a lawn should be raked clean to the roots with an iron garden rake to get this film of dead grass-leaves all out. It is a very different kind of raking from that required to remove the surface grass, and requires muscle and close attention. The third requirement is constant moisture. Where city water-works can be used, or higher springs which supply a force that make lawn fountains and hose sprinklings practicable, there need be no failure in lawns, if the foregoing conditions are found. Parks must of course have generous provisions for artificial waterings.

The sorts of grasses to be used where an extensive surface is to be seeded depend much upon the soil and latitude. It is safe to say that the best pasture grasses of the neighborhood are always the best lawn grasses. Small lawns should be sodded from these pastures, or at least have the walks bordered by sod. But the pastures are made up of many species of grass; one forming the bulk of the feed in the spring, another in the summer, and another in the fall. The Kentucky blue grass, however, is the mainstay, though in the heat of summer a shorter variety of the same species, and white and yellow clovers make a considerable part of the feed. After Sept. rains, white clover covers the same ground and is the main grass of autumn pastures. The seeds of many of the low-growing and creeping grasses cannot be gotten at seed stores, so that the choice is confined to blue grass, white clover, and red-top. The proportion of these by quart or bushel measure may be four parts of blue-grass to one each of the others. The Rhode Island bent grass may be used in the place of red-top. It is a mistake to sow

oats or any other crop with grass for the purpose of shading it. The young grass no more needs shade of oats than young oats the shade of corn. It will thrive better without, and as weeds are quick to make a business of shading the young grass they should be cut as soon as they show, and continuously. Young grass is often smothered by a rank growth of weeds that are permitted to cover the ground first. Sowing times for grass are, in autumn, Sept.; and in the spring, the moment when the ground is settled enough to surface it. Autumn top-dressings of well-rotted manure are invaluable, and should be spread late in the fall, and cleanly raked off as soon as the ground is settled in the spring.

LAW OF NATIONS. See **INTERNATIONAL LAW.**

LAWRANCE, JOHN, 1750-1810; b. in Cornwall, Eng.; emigrated to New York in 1767; admitted to the bar in 1772. He was aid-de-camp to Washington in 1777, and judge-advocate at the trial of maj. André. In 1785 he was a member of the continental congress, and of the new congress, 1789-93. From 1794 to 1796 he was district judge of the United States; 1796-1800 a member of the U. S. senate, and for a part of the time its presiding officer. He was a zealous defender of Washington and Hamilton. Died in New York.

LAWRENCE, a co. in n. Alabama, watered by affluents of the Tennessee river, which forms its northern boundary, and Town creek, running northward and entering the former river near the Muscle Shoals rapids; navigation on the Tennessee being obstructed at the point where it separates this from the counties of Lauderdale and Limestone; about 850 sq.m.; pop. '80, 21,391-21,310 of American birth, 8,809 colored. The Memphis and Charleston railroad crosses the northern section. Its surface is hilly, particularly in the s., where it rises into high table-lands. A large proportion of the soil is under cultivation, and produces corn, oats, wheat, tobacco, honey, and sorghum. Sheep and swine are raised, and the dairy yield is considerable. Number of farms in '70, 2,046; over 1000 acres, 9. Cash value of farms in '70, \$1,413,284. It had in '70, 33 manufacturing establishments, with a capital of \$22,955, and an annual product of \$129,340. Seat of justice, Moulton.

LAWRENCE, a co. in n.e. Arkansas, intersected by the St. Louis, Iron Mountain and Southern railroad, and drained by Black river; two of whose branches uniting in the n. and form a part of its northern boundary; about 600 sq.m.; pop. '80, 8,782-8,654 of American birth, 467 colored. The Cache river flowing s. and emptying into the White river forms its eastern boundary. It has a level surface partially diversified by ridges of table-land and large forests. It has a rich alluvial soil, and deposits of copper, zinc, and lead. It has manufactories of woolen goods and zinc works. Its vegetable products are grain, tobacco, cotton, sorghum, and hops. Seat of justice, Smithville.

LAWRENCE, a co. in s.e. Illinois, on the Wabash river, which separates it from Indiana; traversed by the Embarras river, and by the Ohio and Mississippi and the Cairo and Vincennes railroads; about 350 sq.m.; pop. 12,533. The soil is fertile. Chief productions, cattle, corn, wheat, wool, grass, and pork. Valuation of real and personal property, \$7,391,080. Capital, Lawrenceville.

LAWRENCE, a co. in s. Indiana, watered by the East Fork of the White river, flowing from w. to e. through its southern portion, with Salt creek flowing from the n. and emptying into it, and Indian creek forming part of its western boundary. It is intersected by the Ohio and Mississippi railroad and the Louisville, New Albany, and Chicago railroad, forming a junction at Mitchell in its southern portion, and its county-seat is the terminus of the Bedford, Springville, Owensburg, and Bloomfield railroad; 450 sq.m.; pop. '80, 18,543-18,216 of American birth. Its surface is hilly, having an abundant growth of building timber, and a stratum of limestone beneath a fertile soil. Coal is found and beds of kaolin, formed from the decomposition of feldspar, and used in making porcelain. Number of farms in 1870, 1255, with 2 of 1000 acres and over. Cash value of farms in 1870, \$4,892,988. Its agricultural products include buckwheat, wool, tobacco, sweet potatoes, oats, corn, rye, wheat, maple sugar, sorghum, and live stock. In 1870 it produced 205 galls. of wine and 3,812 lbs. of honey. At Fort Ritner is a tunnel 1786 ft. in length for the accommodation of the Ohio and Mississippi railway trains. Trade is active in its towns, and its manufactories consist of woolen mills, planing mills, cigar and tobacco factories, carriage shops, and steam saw-mills. Seat of justice, Bedford.

LAWRENCE, a co. in e. Kentucky, separated from West Virginia by the Big Sandy river, an affluent of the Ohio, which is navigable by small steamboats up to this point, and forms its eastern boundary; 350 sq.m.; pop. '80, 13,262-13,227 of American birth, 241 colored. The West Fork of the Big Sandy divides the eastern portion, and unites with the Tug Fork on its eastern border to form the larger river. The surface is uneven, two-thirds covered with forests. In the cultivated portion of the valleys the soil is found to be suited to the production of buckwheat, barley, oats, corn, tobacco, rye, wheat, and sweet potatoes, and for the raising of live stock; other products are honey, sorghum, maple sugar, and flax. Vast deposits of coal and iron have been found. Number of farms in 1870, 707, with one of over 1000 acres. Cash value in 1870, \$592,678. Seat of justice, Louisa.

LAWRENCE, a co. in s. Mississippi, intersected centrally by the Pearl river and watered by its branches; 580 sq.m.; pop. '80, 9,422—9,410 of American birth. Its surface is diversified by forest and plain. In the forests are extensive tracts of building timber of oak and pine; among ornamental trees the magnolia, beech, and cypress grow in great luxuriance. The soil where cultivated is found to be productive of tobacco, rice, oats, corn, cotton, sweet potatoes, and sugar-cane. Seat of justice, Monticello.

LAWRENCE, a co. in s.w. Missouri; intersected by the St. Louis and San Francisco railroad, and drained by the head-waters of Sac and Spring rivers; 576 sq.m.; pop. '80, 17,585; surface undulating and covered to a large extent with forests; chief products, corn, wheat, oats, and hay; valuation of real and personal estate, \$3,000,000. Capital, Mt. Vernon.

LAWRENCE, a co. in s. Ohio, has the Ohio river for its boundaries on the s., and e., and w., separating it from Kentucky, and is watered by Symmes' creek and numerous rivulets; about 420 sq.m.; pop. '70, 31,380—28,798 of American birth. It has a surface of alternate sandstone hills, fertile plain and forest, and its soil is unusually fertile. It has one short railroad 3 m. in length running from Center Furnace, in the central portion, to Ironton on the Ohio river, and a branch road to Whitwell of 2 m. in length. Number of farms in 1870, 1217, with 1 of 1000 acres and over. Cash value of farms in 1870, \$2,892,997. In its hills are inexhaustible beds of iron ore, bituminous coal, and clay. It has three coal mines, employing 165 men (150 underground), with a capital of \$210,610; annual product, \$112,880. It has twelve mines of iron ore, employing 626 men (60 underground), with a capital of \$744,050; annual product, \$286,502. Its leading industries are the manufacture of tin, copper, and sheet-iron ware, pig-iron, engines and boilers, bricks, and charcoal. It has flour, planing and saw mills, cooper shops, and rolling mills. Its agricultural products include the raising of grain, tobacco, sweet potatoes, flax, maple sugar, sorghum, and live stock. In 1870 it produced 143 galls. of wine and 5,242 lbs. of honey. Seat of justice, Ironton.

LAWRENCE, a co. in w. Pennsylvania, watered by small creeks and the rivers Mahoning and Shenango, uniting in the central portion to form the Beaver, which empties into the Ohio; about 400 sq.m.; pop. '80, 33,311—30,207 of American birth, 235 colored. The Newcastle branch of the Erie and Pittsburg railroad, the Youngstown branch of the Pittsburg, Fort Wayne, and Chicago railroad, and the Newcastle and Franklin railroad, form a junction at Newcastle in the central portion. The Beaver and Erie canal traverses the n.w. section, following the course of the Shenango river. It had in 1870, 11 coal mines, employing 245 hands (197 underground), with a capital of \$289,050; annual product, \$281,511. It had 3 stone quarries, employing 66 hands, with a capital of \$22,000; annual product, \$58,000. Its leading industries are the manufacture of bricks, brooms, carriages, window glass, iron, machinery, saddlery and harness, and woolen goods; it has also the product of flour, planing, and saw mills. Product of manufactures in 1870, \$3,439,700. Its surface is uneven, with a small proportion of woodland. Its rich tillable lands produce vast quantities of grain, flax, and tobacco; they also furnish an immense dairy product. A large amount of honey, maple sugar, syrup, and sorghum is exported. Number of farms in 1870, 2,188; over 1000 acres, 2. Cash value of farms in 1870, \$11,614,044. Seat of justice, Newcastle.

LAWRENCE, a co. of middle Tennessee, bounded s. by Alabama, and drained by Shoal creek and other streams; 630 sq.m.; pop. '80, 10,383; surface undulating or level, and extensively covered with forests; soil partly fertile; chief productions, corn, cotton, and pork. Iron ore and limestone abound. Valuation of real and personal estate, \$1,250,000; capital, Lawrenceburg.

LAWRENCE, a city of Kansas, in Douglas co., on the Kansas river, founded in 1854; pop. '70, 8,320. It is well built, and lighted with gas, and sustains 25 churches, and a graded public school system, with high school department. The state university, situated here, is an important public institution. The following lines of railroad connect Lawrence with the surrounding country: Kansas Midland; St. Louis, Lawrence, and Denver; Lawrence and South-western; Leavenworth, Lawrence, and Galveston; and Kansas Pacific. At the time of the formation of the republican party, and during the exciting anti slavery period which preceded the outbreak of the Rebellion, Lawrence was the center of the anti-slavery element in Kansas. In 1863 the city was almost entirely destroyed by a raiding party under Quantrell.

LAWRENCE (*ante*), a city of Massachusetts and one of the capitals of Essex co., situated on both sides of the Merrimack river, 26 m. n.w. from Boston, and on the Boston and Maine, the Lowell and Lawrence, and the Manchester (N. H.) and Lawrence railroads; pop. '60, 17,639; '70, 28,921; '80, 39,178. The Merrimack at this point has a descent of 26 ft. within the distance of half a mile, affording a water-power of almost unlimited extent—a circumstance which in 1845 led to the selection of the place as a site for a manufacturing city. Abbott Lawrence, Nathan Appleton, and other wealthy manufacturers of Boston enlisted in the enterprise, and the Essex company was incorporated for the purpose of carrying it into effect. A dam of solid granite, 900 ft. long and 40 ft. high, was thrown across the rapids, and a canal 90 ft. wide and more than a mile in length constructed for the utilization of the water. These works were completed

Oct. 14, 1847, at a cost of \$250,000, and in the following February the first wheel was set in motion by water from the canal. A second canal on the side of the river opposite the first has been built, and an immense capital has been invested in the erection of cotton and woolen mills, and in other branches of manufactures. The place was named in honor of the Lawrence family, several of whose members were among the founders. It was incorporated as a town in 1847, and as a city in 1853, since which time its development has been almost unexampled in New England. The amount invested in the cotton manufacture can hardly be less than \$7,000,000, while that employed in the manufacture of woollens is probably not much less. The city has more than 20 churches, 2 national and 3 savings banks, 2 daily and 4 weekly newspapers, 60 public schools, a public library of 14,000 volumes, a beautiful park of 17 acres, a court-house, city hall, high school (costing \$80,000), music hall, and other public buildings. The assessed value of property in 1875 was \$24,117,373. All the mills and most of the stores and private houses are lighted with gas.

LAWRENCE, ABBOTT, LL.D., 1792-1855; b. Groton, Mass. He served an apprenticeship in Boston to his brother Amos, and in 1814 entered into partnership with him. The brothers Lawrence carried on an extensive trade in the sale of cotton and woolen goods on commission. They were the agents of the cotton manufactories at Lowell, and were afterwards heavily interested in the manufacturing corporations at the new town of Lawrence, which was named in honor of their firm. Abbott Lawrence served a term in congress 1835-37, and a partial term 1839-40. He was a prominent member of the whig party, whose nomination for the vice-presidency, in 1848, he lost by only six votes. Gen. Taylor, on his accession to the presidency, offered Lawrence a seat in the cabinet, which he refused, but accepted the place of minister to England, where he remained for three years, when he was recalled at his own request. In London he entertained with great splendor, and received the most flattering social attentions. Like his brother Amos, Abbott Lawrence was a man of great benevolence, and besides his liberal private charities, founded and endowed at Harvard university a scientific department; called in his honor the Lawrence scientific school.

LAWRENCE, AMOS, 1786-1852; b. Groton, Mass. He began business in Boston as a dry-goods merchant, 1807; took his brother Abbott as partner in 1814; and retired from active business in 1831, thenceforward devoting his time to the care of his large property and to benevolent objects. He is said to have given over \$600,000 for charitable and educational purposes in the last 20 years of his life. He was a liberal benefactor of Williams college, of the academy in Groton, of the theological seminary at Bangor, Me., and of Kenyon college, Ohio. His private charities also were large.

LAWRENCE, JAMES, 1781-1813; b. Burlington, N. J.; entered the navy as a midshipman in 1798; was promoted to lieut. in 1802; and distinguished himself in the bombardment of Tripoli. He was prominent in the war with England, 1812-15; in command of the *Hornet* near the mouth of the Demerara river captured the British sloop of war *Peacock*, Feb. 24, 1813, for which exploit he received from congress a gold medal, and was promoted to command the frigate *Chesapeake*, and was mortally wounded in the engagement between the British frigate *Shannon* and the *Chesapeake* in Boston harbor, June 1, 1813. This was the most desperate sea-fight of the war, the Americans not surrendering until nearly all their officers were killed or wounded. Capt. Lawrence, while being carried below, uttered his since celebrated exclamation, "Don't give up the ship." He died in Halifax, July 5. This distinguished officer lies buried in Trinity church-yard, New York, where his monument is a chief object of interest.

LAWRENCE, TIMOTHY BIGELOW, 1826-69; b. Boston; son of Abbott; graduated at Harvard in 1846. He was an attaché of the American legation in London, while his father was minister at the British court. In 1862-69 he held the post of U. S. consul-general in Italy. Died in Washington, D. C.

LAWRENCE, WILLIAM, b. Mt. Pleasant, Ohio, 1819; graduated at Franklin college, Ohio, in 1838, and at the Cincinnati law school in 1840. He resided successively at McConnellsville and Bellefontaine, where he was successful in the practice of the law. At the latter place he edited the *Logan Gazette*, and, for a time, the *Western Law Monthly*. He also served successively in both branches of the state legislature, where he founded the reform school, and secured the passage of the free-banking law. From 1856 to 1864 he was a judge of the court of common pleas. He served for a time as col. of the 84th Ohio in the war of the rebellion, and was a member of congress from 1865 to 1871, and again in 1873-74. He edited vol. xx. of the *Ohio Reports*, and wrote a work on the *Ohio Civil Code*, and another on *The Law of Interest and Usury*.

LAWRENCE, WILLIAM BEACH, LL.D., b. N. Y., 1800; educated at Columbia college, and admitted to the bar in 1823. He was secretary of the American legation at London, 1826-28, and during a part of that time was *chargé d'affaires*. On his return to the United States he devoted himself to the practice of his profession, in which he attained high rank. He became a citizen of Rhode Island in 1850, and was elected lieut. gov. the next year. He has written several law-books, but is best known by his edition of Wheaton's *International Law*, which appeared in 1855. While in active practice at the bar he made a specialty of cases before the court of claims at Washington.

LAWRENCEBURG, a city of Indiana and the capital of Dearborn co., situated upon the Ohio river, 20 m. below Cincinnati, and upon the Ohio and Mississippi and the Indianapolis, Cincinnati, and Lafayette railroads. Pop. 3,159. It has 7 churches, 2 national banks, and 2 weekly newspapers, and is the center of a considerable trade. It is the terminus of the White Water canal, which affords excellent water-power. This place was the scene of some of Henry Ward Beecher's earliest ministerial labors.

LAWRENCE SCIENTIFIC SCHOOL. See HARVARD COLLEGE.

LAWRENCE, ST. See SAINT LAWRENCE, *ante*

LAWSON, JOHN, b. Scotland; visited America about 1700, and undertook the government survey of the Carolinas, which he conducted for a number of years. In 1712, while engaged in explorations to this end, in the company of baron De Graffenried, a Swiss, who was examining the country with a view of colonizing, he incurred the enmity of the natives, and both were captured. The baron was permitted to go free on paying a ransom, but Lawson was burned at the stake. He wrote *Journal of 1000 Miles' Travel among the Indians, with a Description of North Carolina* (Lond., 1700; republished in several editions; and translated into German, and published in Hamburg, 1722).

LAWSON, Sir WILFRID, b. 1829; a member of parliament for Carlisle, Eng.; has been prominent for his labors in the cause of total abstinence, and as the leader of the United Kingdom alliance. In 1864 he presented and advocated the permissive bill, which allowed two-thirds of the inhabitants of a parish or township to refuse to grant licenses for the sale of spirituous liquors. The bill was not passed.

LAWYER (*ante*). In the United States lawyers are called indifferently attorneys and counselors-at-law. Lawyers who devote themselves specially to patent causes are often called solicitors. Candidates for admission to the bar *are required* in most of the states to pursue a course of legal study either at a reputable law-school or in the office of some practitioner, and to pass a satisfactory examination before a court or before examiners appointed by a court for that purpose.

In England and Ireland lawyers are divided into attorneys, and advocates, counselors, or barristers; the duties of the former are to take charge of and prepare the suit for trial, those of the latter to give counsel regarding the suit and to conduct and argue it in court. A person applying for admission as an attorney must have been an apprentice for 5 years with some member of the bar, or for 3 years if the applicant has a degree from Oxford, Cambridge, or Trinity college, Dublin. The other class of lawyers, the advocates, counselors, or barristers, are called to the bar from the inns of court. An attorney practicing in a court of equity is called a solicitor; in an ecclesiastical or admiralty court, a proctor. The services of an English barrister are theoretically gratuitous, but he is paid by retainers. An English attorney or solicitor is paid according to a fixed system of fees.

In Scotland lawyers are divided into solicitors, advocates, and writers; and there is a privileged body of practitioners known as writers or clerks to the signet. A lawyer, being an officer of court, is bound to conduct himself properly in the suits on which he is retained, and on proof of misconduct or dishonesty in his profession, may be disbarred.

Lawyers are excused from serving on juries, and are exempt from arrest on civil process while in attendance upon court on professional business. The communications of a lawyer with his client are confidential, and a lawyer is protected by the law and cannot be compelled to disclose his client's secrets. In some states and territories, by recent enactment, women are made eligible for admission. For a more detailed account of the classes into which lawyers are divided in Great Britain see ATTORNEY; ADVOCATE; BARRISTER; KING'S COUNSEL; WRITERS TO THE SIGNET; *ante*.

LAY, BENJAMIN, 1681-1760; b. Colchester, England. He emigrated to Barbadoes in 1710, where his opposition to slavery subjected him to annoyance and persecution, which led to his removal to Abington, Penn. Slavery was then tolerated among the Quakers as well as others, and he became an agitator against it, uniting in this work with Anthony Benezet, Benjamin Franklin, and other eminent men. In 1817 he withdrew from the society of Friends as a testimony against it on account of its tolerance of slavery. He lived long enough to witness a great change of sentiment among the Quakers, but died 20 years before slavery was wholly exterminated from the society. In 1737 he wrote a tract, which Franklin printed, entitled, *All Slavekeepers that keep the Innocent in Bondage Apostates*. He carried his opposition to slavery so far as to manufacture his own clothing, in order to avoid the use of the products of slave labor. He opposed tea-drinking as injurious to health and a needless expense, and was very eccentric in some of his personal habits; but he was greatly respected for his sincerity and the spirit of self-sacrifice which he exhibited. Died at Abington, Penn.

LAY, HENRY CHAMPLIN, D.D., LL.D., b. at Richmond, Va., 1823; graduated at the university of Virginia in 1842, and subsequently at the theological seminary of the Episcopal church in that state; ordained deacon in 1846; was minister for a time in Lynnhaven parish, Va., but removed to the church of the Nativity, Huntsville, Ala., in 1847; ordained priest in 1848; consecrated missionary bishop of the south-west in 1859, and transferred to the diocese of Easton in 1863.

LAYBACH. See LAIBACH, *ante*.

LAY BROTHERS, a class of uneducated persons in Roman Catholic convents who are devoted to the service of the monks, from whom they are distinguished by their dress and in whose stated religious services they are not required to join. Their vow binds them only to obedience and constancy. They were first employed, so far as appears, in the 11th century. In nunneries similar services are rendered to the nuns by lay sisters who are sometimes called sisters converse.

LAYCOCK, THOMAS, b. at Wetherby, Yorkshire, 1812; received his education at London, Paris, and Göttingen; in 1855 was appointed professor of the practice of physic and clinical medicine at Edinburgh; and in 1869 physician to the queen in Scotland. He has given much attention to sanitary science, physiology, mesmerism, insanity, etc. Among his works are *The Nervous Diseases of Women; Mind and Brain, or the Correlations of Consciousness and Observation*; and *Methods of Medical Observation*.

LAY DAYS, a term of the maritime law denoting the number of days granted in the charter-party to the charterer or freighter of a vessel to load or unload in. Within the lay days no charge is made, but after their expiration a sum, stated in the charter-party, is charged and called demurrage. Lay days begin upon the arrival of the vessel at the usual place for discharging cargo. Sundays are counted in reckoning lay days, unless there be provisions to the contrary in the charter-party. See **DEMURRAGE**.

LAYNEZ, or LAINEZ, DIEGO, 1512-65; b. Spain; educated at the high school of Alcala, and at the age of 19 years visited Paris, and became an ardent follower of Loyola. He accompanied the latter to Rome, where pope Paul III. appointed him a professor in the *Collegium de Sapienza*. Loyola died in 1556, and Laynez was elected general of the order of the Jesuits the following year. Offered a cardinal's hat, he refused it, designing to devote his life to the service of the new order. He represented it in the council of Trent; and there and elsewhere sustained by discussion and controversy his tenacious ideas in favor of the absolute infallibility of the pope. He laid the foundation at Venice of a college of Jesuits, and placed special stress on the importance of education which should influence the minds of the young for the good of the church. The ambitious nature of Laynez led him to advocate and practice craft and cunning in affairs, and he may be considered to have formed the order of the Jesuits on this principle, to which it has ever since adhered. Yet even Laynez, despite his zeal, fell under suspicion of the Spanish inquisition. He was the author of several theological writings, but none of these, save a few speeches, were ever printed.

LAZARISTS, an order of missionary priests originated in France by Vincent de Paul in 1624. Their chief function was to look after the religious interests of the country people and the lower classes. The new institution soon received the royal sanction, was officially approved in 1626 by the archbishop of Paris, and in 1632 was made by pope Urban VIII. a special religious society with the name of the *priests of the mission*, and Vincent was appointed by him its superior. They received also the same year from Adrien Le Bon, prior of St. Lazarus, the use of his priory, whence they were called Lazarists. As their primary object was to dispense religious instruction and assistance among the poorer classes of the rural districts of France, it was stipulated in the original deed of endowment that they should "neither preach nor administer any sacrament in cities which are the seats of bishops, archbishops, or of courts of justice, except in cases of extreme necessity." Besides their special work, they sought to reform the clergy by means of conferences and the establishment of seminaries. At first they lived in poverty and harmony without being subject to any laws; but in 1655 Alexander VII. confirmed their society, and prescribed a constitution, according to which for admission to the congregation one must have spent two years in a seminary, and must bind himself by the vows of poverty, chastity, and obedience, to care for the spiritual wants of the poor. Their dress is that of the secular clergy. During the lifetime of St. Vincent his disciples had visited nearly all the dioceses of France, and the missionaries had visited also Italy, Corsica, Poland, Ireland, Scotland, Algeria, Tunis, Madagascar. They were invited to Poland in 1651 by Maria Louisa, wife of king John Casimir II. During the French revolution the Lazarists suffered as all other religious organizations did, but were restored as early as 1804, and received from the public exchequer 15,000 francs, also a hospital in Paris for the establishment of a central institution and novitiate. Napoleon abolished the Lazarists in 1809, suppressed their houses, and confiscated their property. But in 1816 they were restored to their former position by Louis XVIII., and their seminary was transferred to a house in Rue Sèvres. In 1829 the pope appointed Pierre Dewailly superior-general. In 1862, according to P. Karl vom heil. Aloys, the Lazarists had 18 houses in France, 27 in Italy, 4 in the British isles, 6 in Germany, 3 in the Pyrenean peninsula, 10 in Poland; in Asia, they had establishments in Asiatic Turkey, Persia, Manilla, 5 provinces of China; in Africa, at Alexandria, Egypt, Algiers, Mustapha, Abyssinia; in America, 17 establishments. In 1874 the number of Lazarists in both hemispheres was estimated at 3,000.

LAZZARI, DONATO. See **BRAMANTE**, *ante*.

LEA, HENRY CHARLES, b. in Philadelphia, 1825; son of Isaac. He inherited his father's taste and aptitude for science, and when only 14 years of age wrote a valuable paper for *Silliman's Journal*. He devoted much time to the study of conchology, and

published *Description of New Species of Shells*. At a later period he studied the organization of society in the middle ages, publishing *Superstition and Force: Essays on the Wager of Law, the Wager of Battle, the Ordeal and Torture; a Historical Sketch of Sacerdotal Celibacy in the Christian Church, and Studies in Church History; The Rise of the Temporal Power, Benefit of Clergy, and Excommunication*. Mr. Lea has long been at the head of the publishing house of Lea & Blanchard. He was prominent in patriotic service during the war of the Rebellion, has written much on political subjects, and is known to have been engaged upon a history of the inquisition, with special reference to America.

LEA, ISAAC, LL.D., b. at Wilmington, Del., 1792, of Quaker descent. In boyhood he entered upon a mercantile career, but his taste for natural history, especially geology, was so strong as to draw him aside from his original purpose. Devoting his spare time to his favorite studies, he early made large collections of fossils, minerals, and shells, and in 1815, when he was but 23 years of age, he was elected a member of the academy of natural sciences in Philadelphia, and began to contribute papers to its *Journal*. Marrying a daughter of Matthew Carey, he connected himself with the publishing house of which that eminent man was so long the head, and in 1827 began a remarkable series of papers upon fresh-water and land mollusks, which were continued for nearly 50 years, forming the materials for a great work upon American unionidæ. He was elected a member of the American philosophical society in 1828, and in 1858 was made president of the academy of natural sciences. He made a collection of unionidæ, the richest in the world, embracing nearly 10,000 specimens, and his papers, read chiefly before scientific associations in Philadelphia, numbered more than 150. He published *Contributions to Geology and Fossil Footmarks in the Red Sandstones of Pottsville*, and collected into 13 vols. his miscellaneous papers under the title of *Observations on the Genus Unio*.

LEA, MATHEW CAREY, b. Philadelphia, 1823; grandson of Matthew Carey; devoted himself to the study of chemistry, especially analytical. He has made important analyses, and is a recognized authority on photography, publishing, 1868, *A Manual of Photography*.

LEA, THOMAS GIBSON, 1785-1844; b. Wilmington, Del.; brother of Isaac. He made a *Catalogue of Plants Collected near Cincinnati*, which was published in 1849 by the late Dr. W. S. Sullivan.

LEACH, WILLIAM ELFORD, 1790-1836; b. Plymouth, Eng.; in 1809 became a pupil of Dr. Abernethy at St. Bartholomew's hospital. Entering with enthusiasm into the study of zoölogy, he was appointed curator of the British museum. In 1813 he published a work on *Crustaceology*. He was the first to analyze the *Insecta* of Linnaeus into *Myriopoda*, *Arachnida*, *Insecta*, and *Crustacea*. He published a *Zoölogical Miscellany* in 3 vols., and began a *History of British Crustacea*; but an affection of the eyes compelled him to relinquish his work when only 17 numbers had appeared, and also to resign the post of curator.

LEACOCK, HAMBLE JAMES, 1795-1856; b. Cluff's Bay, Barbadoes; descended from a noble English ancestry. His father was a slaveholder in Barbadoes. The son received his early education at Codrington college, Barbadoes, became reader in his native parish, studied with his pastor, rev. W. M. Harte, and obtained deacon's orders in 1826. While assistant priest of St. John's church he gave the privileges of the church to all the slaves of the parish, at the same time freeing his own slaves. This awakened so much opposition that the bishop removed him to St. Vincent, and then to Nevis. Difficulty with the bishop, insurrection of the slaves, and fall of property occurring, he removed to the United States, where he was settled in Kentucky and Tennessee. In 1840 he took charge of a small farm near New Brunswick, N. J., supplying churches in the vicinity. In 1841 and 1847 he revisited the West Indies, preaching vehemently against the prevailing vices. In 1855 he sailed for Africa as a missionary of the West Indian church association, and landed at Freetown, Sierra Leone. By the aid of the bishop and governor he founded the station, the Rio Pongas. From a converted negro chief he obtained a site for his dwelling and chapel; opened a school for boys, which was very successful. His health failing he went to Sierra Leone, but soon returned to his post, where he died. A large missionary field was opened as the result of his labors.

LEAD PLASTER. See DIACHYLON, *ante*.

LEADVILLE, a t. in Colorado; pop. 25,000; situated 170 m. from Denver, on the Denver, South Park and Pacific railroad, in southern Colorado, at an altitude of several thousand feet above the sea-level; the center of an extensive and important silver-mining region. The origin and growth of Leadville are extraordinary instances of the rapidity with which unity of interest will populate a neighborhood, however difficult may be the migration and settlement. In 1877 the site of the town of Leadville was a valley covered with sage-brush, and possessing only about 25 inhabitants. In the short period of two years this was transformed into a thriving, active city of as many thousands, from which poured forth daily an amount of wealth probably never before equaled by any community. The discovery of the remarkable deposit of silver in the hills about Leadville was made in 1877, by Messrs. Stevens and Wood, two prospectors who were

engaged in gold-washing in California gulch, about 4 m. from the present Leadville. The discovery was made through the prevalence of a peculiar kind of stone, which, by getting into and choking their sluice-boxes, impeded the work of the miners. The attention of Mr. Wood was at length directed towards the examination of these stones, when he found that besides containing a large proportion of lead—which did not pay to work, on account of the distance of a market and the cost of transportation—they held also a small percentage of chloride of silver. Mr. Stevens followed up this analysis and discovery by tracing the fragments to their outcrop, and there locating a mine; and in the winter of 1877-78 he began working what was afterwards known as the Iron mine, and which was the first worked of the Leadville properties. The eminence containing the claims which made up this mine was called Iron hill, and its discovery was speedily followed by that of the Carbonate hill mines, which were soon developed, both these localities displaying extraordinary richness. Succeeding discoveries were made on Fryer, Evans, and Long and Derry hills, all of these forming a part of the Mosquito range, whose different heights vary between 10,000 and 14,000 ft. above the sea-level, and which lie along the e. of the Arkansas river valley. These hills have been mined very thoroughly. The geological structure of the deposit has not been authoritatively surveyed, but in a general way it may be said to comprise—1, granite; 2, schistose rocks; 3, quartzite; 4, lime; 5, porphyritic trachyte; 6, drift; the mineral being found between the fourth and fifth strata, the floor being limestone and the roof porphyry. The ore contains—1, various oxides of iron and manganese; 2, carbonate of lead and galena; 3, chloride of silver, in small particles, and mixed mechanically, not chemically, with the other minerals. The proportion of silver has been found to vary between a trace and 2,000 to 3,000 oz. to the ton. The average yield has been from 100 to 150 oz. to the ton, though certain mines have assayed 300 to 400 ounces. The carbonate ores have been found the richest in silver, these being divided into hard and sand carbonates—the former hard gray rocks, having a metallic luster when broken; the latter the same in process of disintegration. The silver ore is found in what is known as a “contact vein,” varying from a line to 20 or 30 ft. in thickness. There are no “true fissure” veins in this region. The veins dip at an angle of 15 or 20 ft., the richest deposits of silver occurring generally in depressions. The mines on Fryer hill proved to be perhaps the richest of any up to 1880. They included the Little Pittsburg group, New Discovery, Vulture, Chrysolite, and Carboniferous, all of which became well known, and celebrated for their yield. The number of productive mines which had been worked up the midsummer of 1879 was about 60. Smelting works had been set up which were run by independent companies, and 2 sampling establishments, where the ore was assayed for the purpose of affixing the average as a basis of value. The exceptional character of the settlement of Leadville in the first two years of its history, was, not unreasonably, expected to operate unfavorably on the health of the population. Here was an unusually rapid and extensive accumulation of humanity drawn from almost every portion of the continent, and increasing at the rate of 2,000 souls per month, for which no adequate provision could, at the outset, have been made. Rude and flimsy structures of rough boards were hastily thrown together, into which were crowded as many as they would hold of the miners, adventurers, prospectors, gamblers, and others who had made up the enormous emigration from the east to Leadville. In the city the disregard of the commonest sanitary provisions seemed to invite mortality. There was no drainage; the back lots and alleys were made the receptacle of the city's accumulation of waste and garbage; and irregular hours and the generally unsettled condition of life in a great mining district presented their most threatening aspect. Yet, despite all these disadvantages, and doubtless owing, in the main, to the extreme rarefaction of the atmosphere at such an elevation, the death-rate of Leadville, in a population of 9,000, was only 2 per cent, and one-fourth of this resulted from violence. But the constant accessions of population soon brought about a better condition in the structure of the city. Land within the limits increased in value so that lots which sold for \$200 and \$300, at the beginning of the settlement, increased in value to ten times those figures. Well-built stores and residences were erected, churches were built, 3 daily newspapers were established, and Leadville became a city of business importance, well policed, and comparatively orderly. The completion of the railroad to this point not only afforded facilities for passenger transportation at reasonable rates—thus increasing immigration and settlement—but accomplished a most important improvement in the mining industry by rendering it practicable to ship low-grade ores at a profit. The development of mining claims, while resulting in the production of a vast amount of ore, which brought handsome returns, and made it practicable for fortunate companies to pay large dividends, was followed by the usual speculative fever. Companies were formed with enormous capital (on paper), their stock being sold in the eastern markets at one-tenth or one-twentieth their par value. In many instances the mining properties represented by such stock were never worked; in others, the dividends were paid out of the capital, and the stock “watered” to an enormous amount. Stocks which sold readily in the spring and summer of 1879 at \$18 and \$20 per share, went down to a few cents, or vanished altogether from the list. Mining exchanges were established in New York and Boston, the most of the business being done in the former city, and the larger number of the companies representing the Leadville mines having

their offices there. The number of Leadville companies reported in Jan., 1881, was 12, representing \$72,000,000, the par value of most of the stocks being \$10, though some were held at \$20, and \$100 per share was the par value in at least one instance. The mining-stock market witnessed a serious decline in values at the close of the year 1880, the result of over-speculation and want of confidence. Some of the Leadville mines which had been the most successfully worked gave out; others were badly managed and sunk under financial embarrassment. During the year a serious strike of miners in Leadville, necessitating armed interference on the part of the authorities in the interest of the public peace, served still further to disturb the successful progress of the speculative interests of that section. The effervescence of a wide-spread popular excitement which had lasted for nearly three years had subsided, and the Leadville mining industry was gradually settling to a basis of industrial certainty, firmly established on the unquestionable and remarkable mineral resources of the district. The output of ore of the Leadville mines during 1880, according to the smelters' returns, amounted to 238,000 tons, producing bullion valued at \$15,287,936, or an average yield of \$61.68 per ton.

LEAF. See LEAVES, *ante*.

LEAF-ROLLERS, a family (*tortricidæ*) of small nocturnal lepidopterous insects (moths) which in the larva state roll themselves within the leaves of plants, fastening them with silken threads. They are generally less than an inch in breadth across the expanded wings, having naked antennæ. The fore wings are usually marked with spots and bands, but the hind wings are without ornament. These insects are very injurious to vegetation. The genera and species are very numerous.

LEAGUE, ACHÆAN. See ACHAIA, *ante*.

LEAGUE, ANTI-CORN LAW. See ANTI-CORN LAW LEAGUE, *ante*.

LEAKE, a co. in central Mississippi, intersected by Pearl river and its affluents; about 600 sq.m.; pop. '80, 13,147; surface undulating and covered extensively with forests; chief productions, cotton, corn, and pork; valuation of real and personal property, \$1,299,698. Capital, Carthage.

LEAKE, Sir JOHN, Admiral; 1656-1720; b. Rotherhithe, Surrey, England; early entered the navy, and distinguished himself under his father in 1673 in the action between sir Edward Spragg and Van Tromp, and afterward, when appointed capt., performed the daring feat of conveying some victualers into Londonderry, thus compelling the enemy to raise the siege. In 1702 he was promoted to the rank of commodore, and, in command of a squadron, destroyed the French settlements at Newfoundland, restoring the island to the English. For these services he was made on his return rear admiral, and soon afterward vice-admiral of the blue, and knighted. In 1704 he displayed great skill and gallantry in relieving Gibraltar when on the point of being taken by 500 Spaniards who had climbed up the rock. Soon after he was made vice-admiral of the white, and again, in 1705, relieved Gibraltar by destroying the French squadron. In 1706 he relieved Barcelona when besieged by the Spaniards and French and in great extremity, obliging king Philip to raise the siege. In the same year he commanded the fleet which captured Alicant, Carthagenia, and the island and city of Majorca. On returning home he received for his services a ring valued at £400 from prince George of Denmark, and £1000 from the queen. In 1707 he was made admiral of the white and commander-in-chief of the fleet. In 1708 he captured Sardinia and Minorca. In 1709 he was made rear-admiral of Great Britain. The same year he was lord of the admiralty, and continued high in office till the death of queen Anne. He was several times a member of parliament for Rochester. On the accession of George I. he was superseded on a pension of £600 a year, and spent the remainder of his life in retirement, leaving a reputation for great skill, energy, prudence, and success.

LEAMING, JEREMIAH, D.D., 1719-1804; b. Middletown, Conn.; graduated at Yale in 1745; ordained to the Episcopal ministry in 1748. He was settled at Newport, R. I., 8 years, at Norwalk, Conn., 21 years, and at Stratford 8 years. In the revolutionary war he was imprisoned for his Tory sentiments, and while thus confined contracted a disease of the hip that made him a cripple, on which account he declined in 1783 an election as first bishop of the American Episcopal church. Among his works were a *Defense of the Episcopal Government of the Church*; *Evidences of the Truth of Christianity*; and *Dissertations on Various Subjects*. Died at New Haven.

LEANDER. See HERO, *ante*.

LEAR, TOBIAS, 1762-1816; b. Portsmouth, N. H.; graduated at Harvard in 1783. In 1785 he became the private secretary of Washington; was appointed consul-general at Santa Domingo in 1802, and at Algiers in 1804; in 1805 was appointed commissioner to negotiate peace with Tripoli. Having discharged this duty, he returned to Washington and accepted an appointment as accountant in the war department.

LEAR'CHUS, a Greek sculptor of renown, who is said to have lived in Rhegium, in the s. of Italy, at a period prior to 620 B.C. He is reputed to have made a statue of Jupiter in bronze, which was seen at Sparta, and was regarded as the most ancient work of its kind. It was formed from separate pieces which were adjusted in their

proper relative positions by means of hooks and nails, with a view to the possible separation of the parts when necessary.

LEARNED, EBENEZER, about 1728-1801; b. in Mass.; served as capt. in the French war from 1756 to 1763; raised a regiment in Massachusetts at the beginning of the revolutionary war; was raised to the rank of brig. gen. in 1777, and assisted in the relief of fort Schuyler in Aug. of that year. He took a prominent part in the battle of Stillwater, and was at Valley Forge in the winter of 1778-79, and on account of broken health was compelled to resign in the spring. Congress voted him a pension in 1795. Died at Oxford, Mass.

LEATHER (*ante*). The following are the exports and imports of hides, skins, and leather for the years 1878, 1879, and ten months of 1880, to Oct. 31, for the United States:

EXPORTS.			
	1878	1879	10 m. 1880
Leather, sole and upper.....	\$6,213,625	\$5,096,685	\$5,251,822
Morocco and other fine.....	963,581	664,889	656,664
IMPORTS.			
Hides and skins.	\$16,458,698	\$19,982,400	\$26,123,754
Leather.....	3,390,842	5,376,883	5,874,505

LEATHES, STANLEY, b. Ellesborough, England, 1830; educated at Cambridge; was curate in several churches in London; professor of Hebrew in 1863 in King's college, London; minister of St. Philip's, London, in 1869; Boyle lecturer, 1868-70, at Whitehall; Hulsean lecturer at Cambridge in 1873; and Bampton lecturer at Oxford in 1874; a delegate to the evangelical alliance in 1873 in New York, and is now a member of the Anglican committee for the revision of the Old Testament. He is the author of a well-known work, *Witness of St. John to Christ*.

LEAVENWORTH, a co. in n.e. Kansas, bounded e. in part by the Missouri, and s. by Kansas river; 450 sq.m.; pop., '80, 32,360; intersected by the Kansas Central, the Kansas Pacific, and the Missouri Pacific railroads; surface undulating and diversified with prairies and timber-tracts; soil very fertile; chief productions, corn, oats, hay, pork, and cattle. Valuation of real and personal estate, \$23,476,311. Capital, Leavenworth.

LEAVENWORTH (*ante*), a city of Kansas and the capital of Leavenworth co., situated upon the w. bank of the Missouri river, 38 m. above Kansas City, and 296 m. below Omaha; lat. 39° 19' n., lon. 94° 58' w.; pop. '80, 16,555. It is the e. terminus of the Kansas Central railway, and is on the Leavenworth road, leased as a branch of the Missouri Pacific. The Leavenworth and Northwestern railroad extends hence to Atchison. The Leavenworth branch of the Kansas Pacific connects it with Lawrence, and the Kansas City, St. Joseph, and Council Bluffs railroad is on the opposite bank of the river. The place is also one of the termini of the Chicago, Rock Island, and Pacific railroad, which here crosses the Missouri on a fine new iron bridge, which cost \$1,000,000. A stratum of fine limestone which crops out here protects the place from the encroachments of the river, and makes good landing-places. The city is regularly laid out, the streets for the most part crossing each other at right angles, and lighted with gas. It has 24 churches, a court-house, a high-school, a state normal school; a Roman Catholic academy, orphanage, and hospital; 2 national and 2 savings banks, 2 theaters, and numerous manufacturing establishments, including breweries, book-binderies, cigar-factories, machine-shops, flouring-mills, saw-mills, foundries, brick-yards, etc. It has 4 daily, 3 weekly, and 4 monthly newspapers.

LEAVENWORTH, ELIAS WARNER, LL.D., b. Canaan, Columbia co., N. Y., 1803; spent his early years at Great Barrington, Mass., and graduated at Yale in 1824. He studied law for a time in the office of William Cullen Bryant, at Great Barrington, afterwards spent two years in the law-school at Litchfield, Conn., and was admitted to the bar in 1827, removing in the same year to Syracuse, N. Y. Here he practiced his profession for many years, until ill-health forced him to retire. He was twice elected mayor of the city, was a member of the state assembly in 1850 and 1857, president of the board of quarantine commissioners in 1860, and regent of the New York university in 1861. In Mar., 1861, he was appointed by president Lincoln commissioner under the convention with New Granada, and in 1865 was president of the board of commissioners appointed to locate the state asylum for the blind. In the same year he was trustee of the state asylum for idiots, and was twice re-appointed to the same post. He was a member of the constitutional commission of 1872. In 1874 he was elected to congress. In 1873 he published the *Genealogy of the Leavenworth Family in the United States*. He has since held other posts of honor and responsibility.

LEAVENWORTH, HENRY, 1783-1834, b. Conn.; entered the profession of law, but enlisted in the army in 1812 as cap. of infantry, was made a maj. in 1813, and commanded his regiment in the battles of Chippewa and Niagara Falls in July, 1814. In the latter engagement he was wounded, and for his gallantry in both he was made lieut.col. and col. by brevet. He was appointed lieut.col. in the regular army in 1818, and afterwards commanded an expedition against the Indians of the upper Mis-

souri river. He was brevetted brig.gen. in 1824, and appointed col. of the 3d infantry in 1825. He was the founder of Fort Leavenworth and other military posts on the western frontier. Died in the Indian territory.

LEAVITT, JOSHUA, D.D., 1794-1873; b. in Heath, Franklin co., Mass.; graduated at Yale in 1814; was admitted to the bar in 1819, and practiced for a time in Heath, Mass., and Putney, Vt.; graduated at the Yale divinity school in 1825, and during the next three years was pastor of the Congregational church in Stratford, Conn.; from 1828 to 1831 was editor of the *Sailors' Magazine*. It was at this time that the churches of most of the Protestant denominations in the United States were much agitated upon the subject of revivals of religion, for the promotion of which many pastors adopted what were then called "new measures," such as the employment of "evangelists," the holding of "protracted meetings," "inquiry meetings," etc. The *New York Evangelist* was established to promote revivals and defend the "new measures," and from 1831 to 1837, Dr. Leavitt was its editor. During this period the anti-slavery agitation had its beginnings, and from the first it enlisted the warm support of Dr. Leavitt, who made the *Evangelist* a powerful but discreet agent for its promotion. When the American anti-slavery society was organized in 1833, he accepted its doctrines of the sinfulness of slaveholding and the duty of immediate emancipation, and became one of its most active and influential members. From 1837 to 1840 he was the editor of the society's weekly organ, *The Emancipator*, and a member of the executive committee. When the abolitionists divided in 1840, he went with the new organization, and thenceforth his anti-slavery efforts were mainly confined to the political arena. He was an active promoter of the "liberty" and the "free soil" parties. In 1848 he became office editor of *The Independent*, retaining a connection therewith to the day of his death. About 1834 he compiled and published *The Christian Lyre*, a work containing the great body of the hymns and tunes chiefly used in the revivals of that day. It had a very wide circulation. He reported and published many of the sermons of Charles G. Finney. He also spent several winters in Washington, for the purpose of observing and reporting the action of congress upon questions relating to slavery, and while thus engaged was in close confidential relations with John Quincy Adams, Joshua R. Giddings, and other opponents of slavery then in congress, by whom his counsel was highly prized. It is understood that shortly before his death he began to write a semi-biographical and semi-historical account of his labors in the anti-slavery cause, and it is to be deeply regretted that he did not live to complete the work.

LEBANON, a co. in s.e. Pennsylvania, taken in 1816 from the counties of Lancaster and Dauphin. It is well watered by the Swatara river and the Little Swatara, with their branches; 288 sq.m.; pop. in '80, 38,476-37,845 Americans. The Third mountain, a spur of the Blue mountain range, forms its n.w. boundary, and the First and Second mountains, the extreme north-west. The Conewago hills lie in the extreme s., and the valley of the Swatara creek, a tributary of Susquehanna river. It is traversed by the Lebanon Valley, the Lebanon and Tremont, and the Schuylkill and Susquehanna railroads. The Union canal, the first in the American colonies, passes near the Swatara river, and Tulpehocken creek. The streams furnish extensive water-power for planing, saw, and flour mills. It includes Lebanon valley, which is bounded on the n.w. by the single, narrow ridges of the Kittaninny mountains, and on the s.e. by the steep, stony hills of South mountain, having undulating slate and limestone lands, abounding in every element of fertility. Indian-corn, wheat, rye, buck-wheat, flax-seed, and quantities of well-flavored fruit are produced; and cattle, sheep, and swine are raised. Strawberries, grapes, and mulberries grow wild, and maize is an original product. It contains rich mines of iron ore, copper, slate, limestone, and marble. Pig iron is the chief article of export. The principal industries are the manufacture of bar iron and castings, both for exportation and home use, clothing, carriages, saddlery and harness, tin, copper, sheet-iron ware, and cigars. Value of manufactures in 1870, inclusive of pig iron, \$4,160,084. Seat of justice, Lebanon.

LEBANON, a t. in s.w. Illinois; the seat of McKendree college, a Methodist Episcopal institution, organized (as reported) 1828, chartered 1835, having a library of 10,000 volumes; pop. '70, 2,117. It is in the northern portion of St. Clair co., on the Ohio and Mississippi railroad, 22 m. from St. Louis. It is delightfully situated on Silver creek, which flows s.e., emptying into the Kaskaskia river about 23 m. below, and is much frequented in the hot season by residents of neighboring cities. It has a brisk trade, and is engaged in farming and coal mining. It has 2 newspapers, 8 churches, 1 brewery, 1 distillery, a manufactory of agricultural implements, and 4 hotels. The students of McKendree college publish a semi-monthly magazine.

LEBANON, a t. in Kentucky on a branch of the Louisville and Nashville railroad; pop. '70, 1925-823 colored. It is the seat of justice of Marion co., and a central point for the transportation of the products of several adjacent counties. It is 5 m. from Rolling fork of Salt river, and 43 m. s.w. of Frankfort, 67 m. s.e. of Louisville, and 58 m. s.w. of Lexington. It has 2 weekly newspapers, 2 national banks, 6 churches, several hotels, and a court-house. It is situated on Hardin's creek, and has one flour-mill. Manufactures of furniture, carriages, sashes and blinds are the principal industries; and there are two distilleries and a tannery. It has excellent public schools. The Lebanon

Baptist female college was established there in 1869. The place includes St. Mary's station, the seat of St. Mary's college, a Roman Catholic institution.

LEBANON, a borough in Pennsylvania, on the Union canal, at the junction of the Lebanon Valley and Lebanon and Pine Grove branches of the Philadelphia and Reading railroad. It is the terminus of the Cornwall railroad, which is laid from this point to the Cornwall ore mines, at the distance of 7 m. in a southern direction, comprising three hills of iron ore veined with copper, called, respectively, Grassy, Middle, and Big, with branches of railway to furnaces; pop. '70, 6,727. It is connected with the Schuylkill company coal mines by the Lebanon and Tremont railroad. It is on the Quitapahilla creek, 25 m. from Harrisburg, 28 m. w. of Reading, 26 m. n.e. of Harrisburg, and 86 m. n.w. of Philadelphia. It is a well-built town mostly of brick and stone houses, has good hotels, a library, court-house, and 3 national banks with a capital of \$350,000, 2 savings-banks, a state bank, 7 newspapers, including 2 German and 1 English and German. It has 14 churches, a Roman Catholic institution of learning, and excellent public schools. It is the center of an iron mining district, and 6 m. away there is a quarry of gray marble. Its leading industries are the manufacture of iron implements and castings, engines and boilers, carriages, machinery, and railroad cars. It supplies anthracite coal for 8 large furnaces, and has manufactories of paper, organs, stoves, hollow ware, and bells.

LEBANON, a t. in Tennessee, on a branch of the Nashville, Chattanooga, and St. Louis railway, 30 m. c. of Nashville, and 6 m. s. of the Cumberland river, on a branch of which it is situated; pop. '70, 2,073—917 colored. It has saw-mills, steam flouring mills, and several manufactories of cotton and woolen goods, and brooms. It has 2 national banks, and 7 churches. It is the seat of justice of Wilson co., and has a market-house, a town-hall, and other public halls. It contains a number of educational institutions, including Cumberland university, organized by Cumberland Presbyterians in 1842, embracing, besides the preparatory school, commercial, collegiate, theological, law, and engineering departments, and a library of 6,000 vols. It has also a business and telegraph college, 2 young ladies' seminaries, and a sufficient number of public schools. It has a quarterly magazine published in the interest of education, and a weekly newspaper.

LEBANON SPRINGS, a village of Columbia co., N. Y., a favorite summer resort, famous for possessing the only thermal spring in New York and New England, having a temperature of 73°, and discharging 500 gallons per minute. The village is situated 1000 feet above the level of the sea, and is within viewing distance of the Hudson river and Catskill mountains. It is frequented chiefly for recreation, though its waters have a reputation as a remedy for rheumatism, liver-complaint, and cutaneous affections. The surrounding country offers the charms of beautiful and varied scenery, and the drives are numerous and attractive.

LEBAS, JEAN-BAPTISTE-APOLLINAIRE, 1797-1873; a French engineer principally distinguished for having been employed by the French government in 1836 to take down, transport, and erect the Egyptian obelisk presented to France by the viceroy of Egypt. To his skill in inventing or improving machinery required for that colossal work is due the entire success of the removal. The government published an elaborate work, edited and illustrated by Lebas, on the history and appliances of this achievement.

LE BAS, PHILIPPE, 1794-1861; son of Philippe François Joseph, associate of Robespierre and St. Just; an antiquarian and philologist. From 1820 to 1827 he had charge of the education of Louis Napoleon, afterwards emperor. He filled various literary positions from 1829 to 1846, and was considered one of the most erudite of Frenchmen. Notwithstanding his early connection with the education of Napoleon III., he denounced the *coup d'état*; was a brave supporter of republican opinion; and always defended with warmth the revolutionary vigor of his father's acts. His works are numerous, and of grave and solid character.

LEBLANC, URBAIN, b. 1796; a French veterinary surgeon, who largely advanced veterinary art by the invention of means to practice surgery on animals, especially horses, and by treatises on their diseases, and the treatment of them.

LEBŒUF, EDMOND, b. at Paris in 1809; educated in the polytechnic school of Paris; a graduate of the artillery school of Metz, and soon after capt. in the army of Africa. In 1854 he was chief of artillery in the Crimea, was made gen. of brigade, and was then charged with the French part of the siege works at Sebastopol. In 1856 he was attached to the Russian embassy; in 1858 made gen. of division; in 1859 commander-in-chief of artillery. At this time he made the experiments with rifled cannon which contributed to the victory of Solferino. In 1864 he was president of the artillery commission. In 1866 he was sent commissioner to Venice to receive from Austria the cession of Venetia to Italy; in 1868 commander of the camp at Chalons; and in 1869 head of the 6th army corps at Toulouse. In Aug. of the same year he became minister of war; resigned with his colleagues Dec. 27; in Jan., 1870, was made marshal of France. In April of that year he was called before a committee of the French legislative assembly to state the condition of the French army, when he said: "We are ready: so ready that the war may

last two years without our having need to buy so much as a gaiter button." When the war with Prussia opened in July, Lebœuf was made maj.gen. of the army of the Rhine. The reverses of the French army at the beginning of the war caused a reaction of public opinion against him, and he was charged with incapacity, deprived of his command as maj.gen., and placed under gen. Bazaine. On Aug. 14 he was put in command of the 3d corps, plunged it into sanguinary battles with more desperation than skill, and was, with his corps, a part of the force obliged to surrender after the capitulation of Bazaine. Summoned, in 1871, before the committee to investigate the conduct of the war, he reiterated his belief in the proper condition of the army in the beginning, and gave the most damaging testimony as to the conduct of Bazaine.

LE BRETON FLATS, a suburb of the city of Ottawa, situated on Chaudière and Victoria islands, in the Ottawa river. It is unrivaled for water-power, and contains a foundry, several flour mills, saw and planing-mills, a carding and fulling mill, etc.

LEBRUN, or LE BRUN, CHARLES FRANÇOIS, Duc de Plaisance (Plaisance), 1739-1824; b. France; joint consul with Napoleon, and, under the first empire, minister of finance and confidential envoy. He began public life as secretary of Maupeou, president of parliament, was made inspector of crown lands, and by his influence was practically, though not nominally, the head of the cabinet of Louis XV. On the dismissal of the Maupeou ministry Lebrun was in retirement till 1789. At the dawn of the revolution he wrote a pamphlet of rare wisdom, entitled *Voice of the Citizen*, and was sent to the first council of the states-general. Not being an orator, he bore an inconspicuous part in that remarkable body. He was made governor of the department of the Seine and Oise in 1791, and distinguished himself by an orderly and vigorous administration. Twice arrested and imprisoned under the Robespierrean dynasty, he was freed by the Tallien revolution in 1795, and elected deputy to the council of the ancients. In 1799 he was re-elected, acquired a commanding influence in that body, and controlled its financial legislation. After the *coup d'état*, Nov. 12, 1799, by which Napoleon became first consul, Lebrun accepted the position of third consul. Under the empire he was made arch-treasurer and duc de Plaisance. In 1805 he negotiated the union of the Genoese republic with the French empire; on the abolition of the *tribunat* by the emperor he retired to private life; but was called back in 1810, at the age of 71, to govern Holland after the abdication of Louis Bonaparte. There he was retained till the first abdication of the emperor in 1814. On the advent of the Bourbons, his name was struck from the list of peers, but restored in 1819. His French biographers regard him as a remarkable example of a long life of public service unstained by servility, ambition, or intrigue. Manly in the expression of his opinions, he yielded loyal support to laws and institutions once established, while outspoken in declaring their errors.

LEBRUN, MARIE-LOUISE ELIZABETH VICÉE, 1755-1842; b. Paris, wife of gen. Lebrun, second duke of Plaisance; remarkable as a portrait painter, and a charming woman. Her father was a painter of talent. Marie took up the art as a child, and studied with J. Vernet. At the age of 20 she was famous. Her portraits of "Comte Orloff," "Souvaloff," the "Comtesse de Brionne," and the "Duchesse d'Orléans" gave her a high place. In 1775 she married Lebrun. It was an unfortunate marriage. Her husband, she afterwards writes, was quite amiable, but terribly addicted to women of low manners and to gambling; so that he wasted not only his own fortune, but her earnings. She lived apart from him, and by her genius and her beauty and refinement of manners, gathered a little court, comprising the highest rank and talent of France, though her apartments were so modest that there were not half chairs enough for her cherished guests. She made more than 20 portraits of "Marie-Antoinette," and was the court artist of her day. She was admitted, after considerable opposition, to *l'Académie* in 1783.

Though in the receipt of large sums of money for her work, her husband seems to have had the talent to coax it away from her for "commercial investments," which brought no returns. At the breaking out of the revolution in 1789 she went to Italy, visited Rome, Naples, Vienna, Berlin, and St. Petersburg, where her fame gave her distinguished receptions. She returned to France in 1802, and soon after visited England; here she made a portrait of "Lord Byron." Napoleon requested her to paint his sister Caroline, wife of Murat, but words let slip by the artist about true and false princesses turned Napoleon against her. She then made a journey to Switzerland, where she made a portrait of "Madame de Stael." On the restoration of Louis XVIII. she was again the painter of the court. Her husband, by whom she had only a daughter, died in 1813, and her daughter, wife of the secretary of the Russian count, Czernitcheff, died in 1818. This remarkable woman, who retained to the last the full possession of her artistic and intellectual faculties, has left most interesting memoirs of her life, under the title of *Souvenirs*, 3 vols. 8vo, Paris, 1835.

LEC'CE, a province in s.e. Italy; 3,293 sq.m.; pop. '72, 493,594. It is in the division of Apulia, and was formerly called Terra d'Otranto. In more ancient times it was itself the division of Calabria, or Messapia. The Apennines cross its entire surface, diagonally, from n.w. to s.e., and it is watered by the Lieto and the Galeso rivers. It has a mild climate, and produces freely corn, cotton, tobacco, wine, and olives; but suffers frequently from excessive drought.

LEC'CO, a t. of Austrian Italy, province of Como, at the point where the Adda emerges from the Lago di Lecco, a branch of the Lago di Como, 17 m. n.e. of Como; pop. 7,040. It was an important town under the Romans, and is very prosperous. The people are engaged chiefly in the manufacture of iron and copper ware, silk, cotton and woolen stuffs, in which a considerable trade is carried on. A railway extends hence to Milan.

LECH, a river of s. Germany, Tyrol, and Bavaria. It rises in the Vorarlberg, and after flowing n. 140 m. joins the Danube 26 m. n. of Augsburg.

LECHFORD, THOMAS, d. about 1645; a London lawyer, who emigrated to Boston in 1638, and was the first to practice the profession in New England. He became dissatisfied with the state of things in the colony, and returned in 1641 to England, where he published *Plaine Dealing, or News from New England's Present Government*, etc., and later, *New England's Advice to Old England*. His *Plaine Dealing* was reprinted, with an introduction and notes, in 1867 by J. Hammond Trumbull. Though conceived in a spirit hostile to New England, it is of considerable historic value.

LECKY, WILLIAM EDWARD HARTPOLE, b. Ireland, 1838; was educated at Trinity college, Dublin, and published his first work, *The Leaders of Public Opinion in Ireland*, anonymously, in 1861. His studies now became directed towards philosophical subjects, and in 1865 the first results of these were made public through the issue of his *History of the Rise and Influence of the Spirit of Rationalism in Europe*, a work which made a marked impression on the literary world, mainly on account of the evidence which it afforded of extraordinary erudition and profound contemplation. This impression was sustained by his subsequent work, *History of European Morals from Augustus to Charlemagne* (1869), though in a less degree, on account of the nature and scope of its subject. Nearly ten years were now employed by Mr. Lecky in studies and investigations preparatory to the publication of his *History of England in the Eighteenth Century*, of which vols. i. and ii. appeared in 1878. The first three of these books were translated into German by Dr. H. Jolowicz, and the *History of Morals* is used as a text-book in German universities. The *Edinburgh Review* concluded a critical examination of the *History of Rationalism*, "with the conviction that Mr. Lecky is one of the most accomplished writers and one of the most ingenious thinkers of the time." The *London Quarterly*, *British Quarterly*, and *Fraser's* have also thoughtfully reviewed his writings.

LE CLEAR, THOMAS, b. Oswego, N. Y., 1818. He was distinguished, at a time when artistic work was rare in this country, for the early exhibition of a talent for portraiture. Against the most unfavorable circumstances he subsequently achieved great success and a prominent place among American painters. In 1832, while still with his father in London, Canada, he painted portraits, and was engaged in panel-painting on the great steamers of the lakes, which at that time were decorated by the best talent procurable. He afterwards made studies of Indians at Green bay, Wis., and portraits at Elmira and Rochester, N. Y. In 1839 he established himself on Broadway, N. Y., and secured complimentary recognition of his picture, "The Reprimand," in its purchase by the art union. From 1844 to 1860 he worked in Buffalo; then returned to New York, where he has done notable works, among which are portraits of Daniel S. Dickinson, Millard Fillmore, the artists Gifford, McEntee, and Hubbard, and Edwin Booth as *Hamlet*, besides several imaginative subjects, such as the "Marble-Players;" "Young America;" and the "Itinerants."

LE CLERC, JEAN, d. 1525; b. France. His enthusiasm for religious reform impelled him to tear from the doors of the cathedral of Meaux the placard of the pope's bull of indulgences, and to replace it with a placard calling the pope the antichrist, etc. He was arrested, tried in Paris, condemned to be whipped with thongs for four days, branded upon the forehead, and banished. Returned to Metz he seemed not cured of his opinion by the vigorous medicine of the court at Paris, and returned to the charge by breaking the Catholic images carried in a procession. He escaped, but afterwards proudly acknowledged the act; was condemned to the stake; and was punished before being burned by the cutting off of his right hand, then his nose, then otherwise maimed, and his neck encircled with three rings of red-hot iron; all of which proceedings failed to convert him from his errors, and he died singing and shouting praises to God.

LECLERC, SEBASTIEN, 1637-1714; b. Metz, France; son of a jeweler. He commenced engraving when 12 years old, and at 23 had mastered all studies to fit him to be a civil engineer. Visiting Lebrun, painter, in Paris in 1665, he was induced to devote himself to engraving in that city. He afterwards executed a large number of engravings that made him famous. Louis XIV. gave him apartments at Gobelins and made him his cabinet engraver; and the French academy made him professor of perspective. His works are remarkable for the boldness of their execution and the perfection of their finish.

LECLERC, VICTOR EMMANUEL, 1772-1802; b. France; was a volunteer in the cavalry service during the revolution; made capt. at the siege of Toulon, where he attracted the attention of young Bonaparte, and was made bearer to Paris of the news of the taking of Toulon. One of the famous army of Italy in Bonaparte's first campaign, he was

made gen. of brigade after the battle of St. George, and soon afterward married the famous Pauline Bonaparte. After the return of Bonaparte from Egypt, Leclerc assisted him in Paris to suppress the legislative government, and to assume the title of first consul. Afterwards he commanded a division of the army of the Rhine. In 1801 he was sent to subdue Portugal. The same year he was made capt. gen. of St. Domingo, and required to re-establish slavery there. With a large fleet and 30,000 French troops he met the negro forces under Toussaint L'Ouverture, and after being defeated in a pitched battle, got possession of the great negro leader by treachery, and sent him in chains to France. Leclerc died of yellow fever, and his remains were taken back to France. His career is one which derives its sole interest from connection with the first Napoleon's successes and crimes, with which he was thoroughly identified, and a favorite with the tyrant because a willing tool of his ambition.

LECOCQ, CHARLES, b. France, 1830; a composer of light and brilliant music. In 1852 he won the second prize of the *Conservatoire*, and in 1857 became widely known as a composer. The following are among his compositions: *Ondines au Champagne*; *Mysotis*; *Cabaret de Ramponneau*; *L'Amour et son Carquois*; *Fleur de Thé*; *Jumeau de Bergaume*; and *Fille de Madame Angot*.

LECOMPTON CONSTITUTION, a frame of government for the state of Kansas, adopted by an illegally constituted convention held at Lecompton in 1857, and sought to be imposed by illegal and violent measures upon the people of that state. The members of the legislature which called the convention were chosen not by the voters of Kansas, but mainly by intruders from the state of Missouri, who went thither on election day, and, being countenanced by the agents of the national government, took possession of the polls and elected men known to be in favor of the establishment of slavery in the territory. A very large majority of the voters of the territory were known to be opposed to slavery, and if the national government had protected them from the incursion of hordes of men from Missouri, or even if its officers had not actually encouraged the intruders in their unlawful work, there would have been no difficulty in organizing Kansas as a free state. The Lecompton constitution, framed by a body of men having no more legal authority than a mob, declared the right of slaveholders in Kansas to their slaves to be inviolable, prohibited the legislature from passing any act of emancipation, and forbade any amendment of the instrument before 1864. The scheme for submitting this constitution to the people of Kansas, though denounced as a fraud by Robert J. Walker, the governor shortly before appointed, was approved by president Buchanan. The constitution itself was not submitted even in form to the people; they were only to be allowed to vote upon the question whether they would have the "constitution with slavery" or the "constitution with no slavery," the instrument being so worded that in either case it would virtually fasten slavery upon the rising state. The constitution was thus formally submitted to the electors Dec. 21, 1857. For its adoption "with slavery" the vote returned was 6,226, more than half of which was from the counties along the Missouri border, whose whole number of voters by the census did not exceed 1000. For the constitution "with no slavery" 569 votes were returned, but the great body of the free-state men declined to vote at all, regarding the election as a fraud and a farce. The legally constituted territorial legislature submitted the same instrument to the consideration of the people of Kansas, Jan. 4, 1858, and the result was a majority of 10,226 votes against it. The question was carried to congress, which body ordered still another election to be held Aug. 3, in which the fraudulent constitution was again rejected by 10,000 majority. This virtually ended the struggle for the establishment of slavery in Kansas. An anti-slavery constitution was framed and adopted with all the necessary legal formalities in 1859, and the state was admitted to the union Jan. 29, 1861.

LE CONTE, JOHN, son of Lewis, b. in Georgia, 1818, and was prepared for college by A. H. Stephens; graduated at Franklin college, Athens, now university of Georgia, in 1838. Graduated in medicine in 1841 at the college of physicians and surgeons, New York city, and commenced the practice of medicine at Savannah, Ga., in 1842. In 1846 became professor of natural philosophy and chemistry in Franklin college, and resigned in 1855 to become lecturer on chemistry in the college of physicians and surgeons, New York. Became professor of natural and mechanical philosophy in South Carolina college, at Columbia in that state. In 1869 was appointed professor of physics and industrial mechanics in the university of California, at Oakland, and in 1875 became president of the institution. He is a member of the principal scientific associations, and has contributed many important papers on scientific subjects.

LE CONTE, JOHN EATON, brother to Lewis, an American engineer and naturalist: b. N. J., 1784; d. at Philadelphia, 1860. Entered U. S. army in 1813 as engineer, and made many surveys and plans for fortifications till 1831, when he was retired with rank of maj. Paid much attention to botany and zoology. Published *Monographs of N. American Species of Utricularia, Gratiola, and Ruellia*; *Observations of the N. American Species of Viola*, and *Descriptions of the Species of N. American Tortoises*, in the *Annals of the N. Y. Lyceum of Nat. History*; *A Monography of N. American Histeroides*, in the *Boston Journal of Natural History*, and *Descriptions of Three New Species of Arvicola*, with

Remarks upon other N. American Rodents, in the proceedings of the academy of natural sciences of Philadelphia.

LE CONTE, JOHN LAWRENCE, an American naturalist, son of maj. John E.; b. in N. Y., 1825; graduated at college of physicians and surgeons, 1846. Made scientific excursions in western states when a student, and afterwards traveled extensively in North and Central America, transmitting the results of his observations to scientific societies, principally upon the coleoptera of North America, upon which subject he is eminent authority. He entered the army as surgeon of volunteers in 1862, and was promoted to medical inspector in the regular army, retaining the position till the end of the war. In 1873 he was elected president of the American association for the advancement of science.

LE CONTE, JOSEPH, son of Lewis; b. in Georgia in 1823; was prepared for college by A. H. Stephens; graduated at Franklin college, Ga., in 1841; M.D. New York college of physicians and surgeons in 1845. Commenced practice of medicine at Macon, Ga., in 1848. In 1850 went to Cambridge, Mass., to study natural sciences under Agassiz, and accompanied that savant on an exploring expedition to Florida in 1851. After graduating at Lawrence scientific school he became professor of natural sciences in Oglethorpe university. He was made professor of natural history in Franklin college, and was professor of chemistry and geology in the university of South Carolina from 1856 to 1869. Since 1869 he has occupied the chair of geology and natural history in the university of California. Among his papers are: *On the Agency of the Gulf Stream in the Formation of the Peninsula and Keys of Florida*; *On the Correlation of Vital Force with Physical and Chemical Forces*; *On Some of the Ancient Glaciers of the Sierras*; *On the Structure and Age of the Cascade Mountains*; and *On the Relations of Religion to Science*.

LE CONTÉ, LEWIS; b. in N. J. in 1782; d. in Georgia, 1838, from septic. poison. He was of Huguenot descent, ancestors coming to New Rochelle, N. Y.; graduated at Columbia college, N. Y., in 1799; studied medicine with the celebrated Dr. David Hosack; settled in Georgia, taking care of his father's estate and establishing a botanical garden, where he cultivated rare bulbous plants obtained from the cape of Good Hope. He devoted considerable time to mathematics and zoology, as well as botany.

LECOUVREUR, ADRIENNE, 1690-1730; b. Champagne, France; one of the most gifted and versatile of all the women who have made the French stage alike celebrated for the exquisite truth of nature in its impersonations, and the life of love and passion, romance and tragedy, of which its votaries became the exemplars. She was daughter of a hatter, who went to Paris to better his trade. Located near the theater of the *Comedie-Française*, Adrienne, then a grown girl, a laundress, found her genius throbbing for expression in the drama. She organized a little private theater among the neighbors, which was so successful as to draw from the comedians of the Royal theater a complaint against it as an unauthorized theater. The amateur performances thus closed, Adrienne was taken by a kind prior to the actor Legrand, who was struck with her talent and beauty, and gave her lessons in elocution. She secured an engagement in Strasburg, and after some years of provincial successes was called at the age of 27 to enter the *Comedie-Française*. She at once assumed the first place among French actors. Her force of character and high spirit, her noble beauty—intellectual, passionate, but not gross—gave all her personations the stamp of her individuality. She became the lion of Paris, and for 13 years her real life, like her acting, was a stormy elysium, filled with the loves and gallantries of the most eminent men of her time. Voltaire ranked himself among her lovers by some of the tenderest lines *in memoriam* that ever came from his pen. She was poisoned in Paris by some mysterious means employed by a rival of noble family and ignoble character, Françoise de Lorraine, duchesse de Bouillon.

LE CREUZOT. See CREUZOT, LE, *ante*.

LECTISTURNIUM, a sacrificial ceremony observed by the Greeks and Romans on occasions of extraordinary solemnity, when the statues of the gods were placed in a reclining posture on couches, and a feast was spread on tables before them. The ceremony, according to Livy, was first observed in the year of Rome 354, on account of a destructive murrain among cattle. At first a distinction was made between the gods and goddesses, as at the *Epulum Jovis* held in the capitol, where the statue of Jupiter was laid in a reclining attitude, while those of Minerva and Juno were set on chairs. Afterwards this distinction seems to have been neglected, as may be inferred from a representation on the carved handle of a Roman lamp engraved by Bartoli.

LECTOURE, a t. of France, in the second arrondissement of the department of Gers, on the river Gers, 20 m. n. of Auch; pop. 2,963. It is on the summit of a steep, isolated rock, and contains a college, a hospital on the site of the old castle, a handsome Gothic church built by the English, a town-hall, an old episcopal palace purchased by marshal Lannes, a native of the town, and presented by his widow to the corporation, now used for the residence of the mayor and for the courts of justice. In front of this is a statue of the marshal in white marble. Lectoure is surrounded by several fine promenades. It is an ancient place. It manufactures coarse woolen cloths, and has an active trade in cattle, grain, wine, and brandy.

LECTURES—LECTURESHIPS. In the time of Charles I. the people were accustomed to send to the pulpit requests for prayers in behalf of their friends in the army of Essex. These became so numerous that there was not time to attend to them. Several London ministers therefore agreed to set apart a morning hour for this purpose, devoting the time to prayer and exhortation. After the war it became a casuistical lecture, and was continued till the restoration of Charles II. These sermons were afterwards published in several volumes quarto under the title of the *Morning Exercises*. Archbishop Tillotson and other eminent preachers were the authors. For a month these lectures were given every morning. Most of them were delivered at Cripplegate church, some at St. Giles's, and a volume against popery in Southwark. The time for the lecture has been exchanged for the evening.—The merchants' lectures is the title of a lectureship instituted in London in Pinner's hall in 1672 by the Presbyterians and Independents, or Congregationalists, to show their essential agreement among themselves, and to support the doctrines of the reformation against popery, Socinianism, and infidelity. The most learned and popular ministers were chosen as lecturers, as Dr. Bates, Dr. Manton, Dr. Owen, Mr. Baxter, Messrs. Collins, Jenkins, Mead, Alsop, Howe, Cole, and others. This lectureship was sustained by some of the principal merchants and tradesmen of the city. Owing to a misunderstanding, the Presbyterians removed to Salter's hall, the Independents remaining at Pinner's hall, and each body decided to select the lecturers from its own denomination. The monthly lectures are delivered monthly by the Congregational ministers of London in their chapels in rotation. They form a connected course of one or more years. In 1827 a volume of these lectures on the evidences of revelation was published.—The Congregational lectures are a series of annual lectures delivered in London by Congregational ministers of Great Britain on theological subjects.—The Dudleian lectures, founded by Paul Dudley, a lawyer, 1675–1751, at Harvard college, for the defense of Christianity, were delivered until very recent years.—The Lyman Beecher lectureship on preaching, at Yale college, was founded by Henry W. Sage of Brooklyn. The first course was delivered by the rev. Henry Ward Beecher in 1872, who was followed by John Hall, D.D., Phillips Brooks, D.D., bishop Matthew Simpson, and Howard Crosby, D.D.—The Ely lectures at Union theological seminary, New York, were founded by Zebulon Ely. The first course was delivered by the rev. Albert Barnes, followed by president McCosh, prof. Andrew P. Peabody, principal Dawson of Canada, and R. S. Storrs, D.D.—The Bohlen lectures were established in Philadelphia in 1878 at the church of the Holy Trinity. Lectures have been given by bishop Huntington, Phillips Brooks, D.D., and dean Howson.—Hibbert lectures, established in London in 1878 for the presentation of subjects pertaining to advanced thought. In this course lectures have been delivered by Max Muller, Ernest Renan, and L. Page Renouf.—The Stone lectures, established by Levi P. Stone, is a series of lectures in Princeton theological seminary. Lectures have been given by William M. Taylor, D.D., R. S. Storrs, D.D., and prof. Flint of Scotland.—See **BAMPTON, BOYLE, and HULSEAN LECTURES**, *ante*.

LEDERER, JOHN; time and place of birth unknown, but is supposed to have been a German; an early explorer of the mountain regions of Virginia. He wrote in Latin an account of his travels, translated and published in 1672 by sir William Talbot, Bart., under the title of *Discoveries of John Lederer in three several Marches from Virginia to the West of Carolina and other parts of the Continent, begun in Mar., 1669, and ended in Sept., 1670*. He was driven out of Virginia by ill-treatment from the populace, and baron Talbot induced him to write this book for his own vindication.

LEDGER-LINES. See **LEGER-LINES**, *ante*.

LEDOCHOWSKI, MIECISLAS HALKA, Count de, cardinal, b. 1822 at Ledochow, Galicia; studied theology at Warsaw, Vienna, and Rome; was domestic prelate and prothonotary apostolic to Pius IX. Entering the papal diplomatic service, he was auditor of the nunciature successively at Madrid, Lisbon, Rio de Janeiro, and Santiago de Chili, nuncio at Brussels, and archbishop of Thebes in 1861. By request of the king of Prussia he was appointed archbishop of Gnesen and Posen in 1866, becoming thereby primate *ex officio* of Poland. In 1873 he took the lead in protesting against the new Prussian ecclesiastical laws, by which the people of the dioceses and parishes were allowed to choose their own bishops and priests. He refused to appear before the courts to justify his action, in consequence of which his property was taken in payment of fines, and he was imprisoned at Ostrowa. He was appointed cardinal Mar. 15, 1875.

LEDYARD, JOHN, 1751–89; b. Conn.; prepared himself for missionary labors, and was for a time among the Indians of the Six Nations. In 1776 he went to London, and accompanied capt. Cook on his third and last voyage. He was at this time a corporal of marines in the British service, and in 1782, when off the American coast, deserted, and endeavored to organize a n.w. trading expedition. In this he failed, and two years later again went to London, whence he undertook a tour of exploration in the extreme n. of Europe. Starting from Stockholm on foot, he traversed the coast-line of the gulf of Bothnia, and continued his course to Siberia. He was arrested at Irkutsk by orders of the Russian government, and expelled from the country with orders not to return under penalty of death. This harsh action appears to have been taken on the suspicion that he was a spy or on account of jealousy. He reached London with diffi-

culty in a most forlorn condition, where he was kindly received, and by sir Joseph Banks and some other persons sent on an expedition of exploration to Africa. He reached Cairo, but was there attacked by a fit of sickness which put an end to his life. Ledyard's diary of his voyage with capt. Cook was published in an abridged form in Hartford, Conn., 1787. Others of his manuscripts were issued in London among the memoirs of the society for encouraging discoveries in central Africa. He possessed a restless temperament and an adventurous disposition, but his travels do not appear to have resulted in any considerable service to mankind. It is remarkable that he should have left his native country at the outbreak of the revolution, should have entered the naval service of Great Britain in a branch of it devoted to the comparatively peaceful duty of exploration, and should have deserted this service immediately after the close of the war between the two countries.

LEDYARD, WILLIAM, 1738-81; b. at Groton, Conn.; commander of fort Griswold, near New London, in 1781, defending the post with great courage against an overwhelming British force until it was taken by storm, when, with more than 100 of his soldiers, he was massacred by the enemy. A monument commemorates the event.

LEE, a co. in s.e. Alabama, having the Chattahoochee river for its e. boundary, drained by affluents of the Tallapoosa; about 610 sq.m.; pop. '80, 27,373—27,285 of American birth, 15,056 colored. It is intersected by 3 branches of the Western railroad of Alabama: the Selma, the West Point, and the Columbus. Its county seat is the terminus of the Savannah and Memphis railroad, and the East Alabama and Cincinnati. Its surface is uneven, with densely wooded hills and wide fertile plains. Its tillable lands are adapted to the cultivation of cotton, sweet potatoes, rice, sugar-cane, fruit, and the products of the dairy. It has fine pasturage for the raising of live stock. It produced in '70, 3,509 lbs. of honey. Number of farms in '70, 1205, including 7 of 1000 acres and over. Cash value of farms in '70, \$1,405,738. Seat of justice, Opelika.

LEE, a co. in n.e. Arkansas, formed in 1873 out of parts of Monroe, St. Francis, and Phillips counties, and has the Mississippi for its eastern border; 1000 sq. miles. It is watered by the Languille, Blackfish, and St. Francis rivers, flowing through it from n. to s., and emptying into the Mississippi. It has a vast area of alluvial soil adjacent to the river banks, susceptible of cultivation when not subject to overflow. The climate resembles that of Louisiana in its humidity and forwardness of vegetation in the spring, and is said to be adapted to the cultivation of the vine and the silk-worm. A large extent of unsettled country is covered with a heavy growth of beech, denoting a rich soil, and there are groves of elm, hickory, and oak. Cotton is the staple article of cultivation; other products are fine maize, sweet potatoes, and the vegetables generally of Mississippi and Louisiana. Seat of justice, Marianna. Pop. '80, 13,288.

LEE, a co. in s.w. Georgia, having the Flint river for its e. boundary, is watered by two of its affluents, and intersected centrally by the Smithville and Albany line of the Southwestern railroad; 350 sq.m.; pop. '80, 10,577—10,566 of American birth, 8,839 colored. Its surface is generally level, and equally divided into plain and forest; its wooded elevations furnishing building timber of pine and oak. The product of its tillable lands is grain of all kinds, cotton, sweet potatoes, and sugar-cane. Some attention is paid to vine culture. Cash value of farms in '70, \$992,374, numbering 139, including 19 of 1000 acres and over. Seat of justice, Starkville.

LEE, a co. in n. Illinois, watered by the Rock river crossing the n.w. corner, and the Green river and Big Bureau creek rising in the county and flowing southward. The Chicago and Northwestern railroad traverses the n. portion, and forms a junction at Dixon with the Rockford and Rock Island and the Illinois Central railroads; 728 sq.m.; pop. '80, 27,494—22,347 of American birth. The country along Rock river is undulating, and partially covered with dense underbrush and scattering timber; the rest of the county spreads into broad, level prairies, inclining to be low and wet, but affording good grazing, pasture, and meadow farms. Stock raising is a remunerative business. Every kind of timber that prevails in Illinois may be found in the groves; and miles of hedge-fencing of the osage orange are planted every spring. In the central portion some Galena limestone is quarried. Indian corn, wheat, oats, flax, and sweet potatoes are the staple products. Total value of all farm productions, including stock, in '70, \$3,001,570. The principal industries are the manufacture of agricultural implements, carriages, dressed flax, iron castings, and woolen goods. Value of manufactures in '70, \$2,066,295. Seat of justice, Dixon.

LEE, a co. in s.e. Iowa, organized in 1837, has for its eastern boundary line the Mississippi river, on the n.e. the Skunk river, and on the s.e. the Des Moines, which empties into the Mississippi, at its southern extremity. It is traversed in the southern section by the Des Moines Valley railroad, and centrally by the Keokuk division of the Chicago, Burlington and Quincy railroad, and the Burlington and South-western; 500 sq.m.; pop. in '80, 34,859—28,930 of American birth. Hickory, walnut, and cottonwood trees grow on the river banks, and a few sycamores; a vast amount of locust has been raised. The surface is a succession of gentle elevations and depressions, with bold bluffs along the streams, and rich bottom-lands unsurpassed for fertility. The soil is a drift deposit, with a deep covering of vegetable mold. Considerable attention is paid to wool-grow-

ing, to fruit-culture, and the raising of fine cattle and horses. Beds of bituminous coal, gypsum and limestone for building purposes, appear on the banks of the Des Moines and Skunk rivers. Gypsum is found from 25 to 30 ft. in thickness. The Cardiff giant was manufactured from this deposit. Potters' clay is abundant, furnishing material for extensive potteries. The streams afford many excellent mill-sites. Pure well-water is easily obtained. Valuation of real and personal estate in 1870, \$20,000,000. Estimated value of farm productions, including additions to stock, etc., \$1,948,977. Value of manufactures, \$2,623,135. Seat of justice, Fort Madison.

LEE, a co. in e. Kentucky, watered by the middle, n. and s. forks of the Kentucky river, flowing into it from the n.w., is separated from the county on its eastern border by high ridges of mountains; 250 sq.m.; pop. '80, 4,254. Its surface is mountainous, but well wooded, and its valleys are fertile. Beds of bituminous coal and iron are found in the hilly region, and near the villages. Its productions include live stock, every variety of grain, tobacco, sweet potatoes, sorghum, maple-sugar, dairy products, and flax. It produced, in 1870, 3,118 lbs. of honey. Seat of justice, Beattyville.

LEE, a co. in n.e. Mississippi, intersected by the Mobile and Ohio railroad, is drained by the head waters of the Tombigbee river; 520 sq.m.; pop. '80, 20,461. Its surface is generally level, consisting of fertile plains, covered for long distances with a thick growth of hickory, elm, and oak, diversified by the tulip-tree and magnolia. Its soil, which has a substratum of limestone, is very productive, and adapted to the raising of live stock and every variety of grain, tobacco, cotton, sugar-cane, sweet potatoes, dairy products, and the vine. It produced, in 1870, 3,159 lbs. of honey. Cash value of farms in 1870, \$1,463,074, numbering 1970, including one of more than 1000 acres. Seat of justice, Tusselo.

LEE, a co. in s.w. Virginia, having for its s. boundary part of the state lines of Tennessee and North Carolina, and for its w. and n. the Cumberland mountains, separating it from Kentucky; about 450 sq.m.; pop. '80, 15,116—15,110 of American birth, 1005 colored. It is drained by Powell's river, rising in the county which bounds it on the n., and flowing s.w. through it into e. Tennessee. It is bounded on the e. by a range of mountains, through which is a natural tunnel 400 ft. in length. Stone mountain occupies part of the central portion, and the intervening valleys are very fertile, having a formation of limestone, and being well wooded with hickory, oak, ash, maple, and pine. Its agricultural productions include the raising of grain, sweet potatoes, sorghum, maple-sugar, and live stock. It produced, in 1870, 26,535 lbs. of honey. Cash value of farms in 1870, numbering 930, \$2,184,205. It employs capital in flour-mills, tobacco-factories, and manufactories of woolen goods. Its mountains abound in coal, iron ore, limestone, sandstone, and saltpeter. Seat of justice, Jonesville.

LEE, a t. in w. Massachusetts, incorporated in 1777, among the Berkshire hills, in the co. of Berkshire, on the Housatonic river; pop. '80, 3,939. It is divided into East Lee, South Lee, and Lee Center; the two latter having stations on the Housatonic railroad. It is 110 m. from Boston, 115 m. from New York, 99 m. n. of Bridgeport, Conn., 11 m. s. of Pittsfield, Mass., and 38 m. s.e. of Albany. It has a national bank, a weekly newspaper, 8 churches, several hotels, a public library, and superior public schools. There are a number of woolen mills, but the principal industry is the manufacture of paper, employing 25 mills. It is celebrated for its ledges of fine, white marble, which has been extensively quarried to supply building material for exportation. This stone was used in the extension of the capitol at Washington, and in the erection of the Roman Catholic cathedral in New York. It is near the center of a district much resorted to in summer by urban residents, and which is noted for its delightful scenery and ancient air of respectability.

LEE, ALFRED, D.D., a bishop of the Protestant Episcopal church; b. at Cambridge, Mass., Sept. 9, 1807; graduated at Harvard in 1827; admitted to the bar in 1830, and practiced for three years in Norwich, Conn.; after a course of study in the general theological seminary in New York, was ordained deacon in 1837 and priest in 1838; was rector of Calvary church, Rockdale, Del., 1838-41, when he was consecrated bishop of Delaware and became rector of St. Andrew's in Wilmington. He has published *Life of St. Peter*; *Life of St. John*; *Treatise on Baptism*; *Memoir of Susan Allibone*; and *Harbinger of Christ*.

LEE, ANN. See SHAKERS, *ante*.

LEE, CHARLES, 1731-82; b. Cheshire, England. He entered the British army at 11 years of age; was in Braddock's expedition, and wounded at Ticonderoga in 1758. He also served for a time in Portugal, but certain infelicities of temper hindered his advancement, and he never rose higher in the British service than a half-pay lieutenant. As a "soldier of fortune" he was more successful, having attained the position of aid-de-camp to the king of Poland and a maj.gen. In the Russian service against the Turks he became notorious chiefly as a duelist. In 1773 he emigrated to America, purchased an estate in Berkeley co., Va., and became an ardent whig. In 1775 he became maj.gen. of the continental army, took part in the defense of Charleston, and in 1776 was taken prisoner at Basking Ridge, N. J. It is now believed that, while in confinement, he made treasonable proposals to the enemy. In 1778 he was released by exchange, and

in the battle of Monmouth his insubordination nearly lost the day. He was court-martialed and suspended from command for a year. Soon afterwards he was wounded in a duel by col. John Laurens, who challenged him for language disrespectful to Washington. After this he addressed a disrespectful letter to congress, and was punished by dismissal from the service. Died in Philadelphia.

LEE, CHARLES ALFRED, 1801-72; b. Salisbury, Conn.; graduated at Williams college, and in 1825 at the Berkshire medical college at Pittsfield, Mass.; settled in New York, and was one of the founders of the Northern dispensary. He aided in founding the medical college of the New York university, and the Geneva medical college, in which and in many other medical institutions he was professor, chiefly of materia medica and obstetrics. He edited for several years the *New York Journal of Medicine*, and published several medical works. He edited the American edition of Copland's *Dictionary of Practical Medicine*. His medical works and contributions to medical periodicals are numerous.

LEE, ELIZA BUCKMINSTER, 1792-1864; b. N. H.; daughter of Joseph Buckminster, D.D., a clergyman in Portsmouth, and sister of Joseph Stevens Buckminster, an eminent clergyman and scholar. Under their supervision she acquired a superior classical education, and fondness for literary pursuits. She wrote the memoirs of her father and brother, published in 1849 and 1851, giving such clear insight into the higher New England character, that it was called by Thomas Carlyle a most valuable work. She married Mr. Thomas Lee, and passed her life in Boston and vicinity. She published, in addition to translations from B. Auerbach and other German authors, *Sketches of a New England Village*, (1837), a life of Richter (1842), and *Naomi, or Boston Two Hundred Years Ago* (1848).

LEE, EZRA, 1749-1821; b. Conn.; is remembered for a dangerous feat which he performed during the revolutionary war. The British war-vessel, the *Eagle*, was lying in the New York harbor, and it became necessary to make an effort to dislodge her from her position. Lee volunteered to fasten to her side one of David Bushnell's machines designed for blowing up vessels from under water. This machine was made to carry the operator and 150 lbs. of powder. The *Eagle* was a 64-gun ship, thickly sheathed with copper, and the attempt to fasten the infernal machine to her side was unsuccessful. Lee, however, performed his part of the duty faithfully, remaining under water for several hours, and on his return was warmly congratulated by Gen. Washington. He also fought bravely at Monmouth and in other battles.

LEE, FRANCIS LIGHTFOOT, 1734-97; son of Thomas; b. at Stratford, Westmoreland co., Va., Oct. 14, 1734; received an English and classical education from private tutors; was a member of the house of burgesses 1765-72, and of the continental congress 1775-79. He was one of the signers of the declaration of independence, often presided in committees of the whole, and was a member of other important committees of the congress. When the terms of peace with England were under consideration in 1783, he insisted most strenuously upon securing the right to the navigation of the Mississippi and to the Newfoundland fisheries. He took a prominent part in framing the articles of confederation which preceded the present constitution of the United States. He was a warm personal friend and supporter of Washington. After his retirement from congress in 1779, he served for a brief time in the senate of Virginia, but with this exception led a life of retirement.

LEE, HANNAH F., 1780-1865; b. Mass.; daughter of Dr. Sawyer, an eminent physician of Newburyport. She married George G. Lee, of Boston, and for many years devoted her time to literature. In 1835 she published *Grace Seymour*, a novel, but nearly the whole of the edition was destroyed at the great fire in New York. In 1838, during a season of general financial distress, she published, anonymously, *Three Experiments of Living*, a work treating of the morals of domestic life. It met with remarkable success, and was widely circulated in England and other countries. Thirty editions were published in America. Among her best productions are *Old Painters*; *Luther and his Times*; *The Huguenots in France and America*; *Stories from Life for the Young*; and a *Memoir of Pierre Toussaint*. Her own name appeared for the first time, in connection with her writings, in the appendix to Miss Hannah Adams's memoir of herself, edited by Dr. Joseph Tuckerman.

LEE, HARRIET, 1756-1851; b. England; daughter of an actor of respectability, who had been bred to the law, and was careful to educate his daughters. She was the sister of Sophia Lee, with whom she was associated in an academy at Bath, which Sophia had established, called Belvidere House. With her sister she shares the honor of fostering the talents and predicting the eminence of sir Thomas Lawrence. Having secured a competence by the successful management of the school, on the retirement of her sister she went to reside with her in the vicinity of Tintern Abbey, and afterward at Clifton, where she died, having survived her sister 27 years. She is chiefly celebrated for the joint authorship with her sister, of the *Canterbury Tales* (1797-1805), in 5 vols. A new edition appeared in New York in 1857. There are 12 tales, 8 of which she wrote. In 1821 her German tale, *Kruitznor*, was dramatized by Byron, and published, with due acknowledgment, under the title of *Werner, or The Inheritance*.

LEE, HENRY W., D.D., 1815-74; b. at Hamden, Conn.; ordained deacon in the Episcopal church in 1838; in 1840 became rector of a new church in Springfield, Mass.; in 1848 took charge of St. Luke's church in Rochester, N. Y.; in 1854 was consecrated as bishop of Iowa. Died in Davenport, Iowa.

LEE, JESSE, 1758-1816; b. in Prince George's co., Va.; founder of the Methodist Episcopal church in New England. He joined the Methodist church in 1773, and in 1783 was admitted to the conference as a preacher. In 1787 he visited New England and preached Methodism from Connecticut river to the farthest settlements in Maine. He formed the first Methodist class in New England, at Stratfield, Conn., Sept. 26, 1787, and the first in Boston, July 13, 1792. He was three times chosen chaplain of the U. S. house of representatives, and once of the senate. His principal work was a *History of Methodism in America*.

LEE, LUTHER, D.D.; b. at Schoharie, N. Y., 1800; became a preacher of the Methodist Episcopal church in 1827, and was one of those who at an early day espoused the anti-slavery cause, incurring thereby the active opposition of the leaders of the denomination. He was among those who, in 1843, withdrew from the Methodist church on account of its attitude upon the slavery question, and organized a new sect called the "Wesleyan Connection." He was president of the first Wesleyan Methodist general conference in 1844, and for several years edited *The True Wesleyan*, the organ of the new denomination. In 1856 he became president of Michigan Union college at Leoni, Mich., and in 1864 was appointed professor in Adrian college, Mich. In 1867 he returned to the Methodist Episcopal church, uniting with the Michigan conference.

LEE, NATHANIEL, 1657-1690; a dramatic poet, b. Hertfordshire, Eng.; educated at Trinity college, Cambridge; was an unsuccessful actor, and subsequently a dramatic author; became insane from habits of dissipation, induced by poverty and a wild imagination, and was confined in a lunatic asylum for four years; in 1688 was released on recovering his reason, and devoted himself to his former pursuits. Three years later he was killed, it is said, in a street night frolic. Of his 11 tragedies, *Theodosius*, *Alexander the Great*, *The Rival Queens*, *Mithridates*, and *Lucius Junius Brutus* were the best; the first two especially were long popular. His genius for tragedy is highly commended by Addison and others, but his metaphors were often extravagant and his style bombastic. He was an imitator of Dryden.

LEE, ROBERT, D.D., 1804-68; b. Tweedmouth, England; educated at the university of St. Andrew; ordained a minister of the Scottish church in 1832; settled at Arbroath in 1833, and at Campsie in 1836. When the church of Scotland was rent in twain, he remained with the Established church, was called to the pastorate of the Old Gray Friars' church in Edinburgh, and took a prominent part in the controversies that ensued. In 1844, to rebut the charge of Erastianism brought against the national church by the seceders, he translated and published with a preface of his own *The Theses of Erastus touching Excommunication*. In 1846 he was appointed regius professor of biblical criticism in the university of Edinburgh, and eight years later published the great work of his life—the fruit of most careful and earnest research—*The Holy Bible, with about 60,000 Marginal References and Various Readings, revised and improved*. He was charged by some of his brethren with unsoundness on the subject of eternal punishment, but defended himself with great vigor. He was a member of the deputation that appeared before a committee of parliament in 1858 on the subject of university reform, and had the satisfaction of seeing his suggestions embodied in the act that was finally passed. In 1859 he was arraigned before the presbytery of Edinburgh, and afterwards before the general assembly, upon the charge of introducing in public worship liturgical forms and postures unknown to the church of Scotland; the fact being that he had published a volume of *Prayers for Public Worship* and used the same in his own church. He defended himself with such power and eloquence that his accusers were defeated. In 1860 he published *The Reform of the Church of Scotland in Worship, Government, and Doctrine*, in which he presented his views of liturgical forms, postures, instrumental music, etc., and expressed his earnest desire, by certain changes in these and other particulars, to bring the church into more perfect harmony with the catholic Christian spirit and with the aspirations of the age. The general assembly of 1863-64 took action favorable to his views, and shortly afterwards an organ was erected in Gray Friars' church, a step which marked a new era in the history of the national church of Scotland. In 1865, however, the general assembly reversed its previous action, and the questions at issue were about to be tested in the civil courts, when Dr. Lee was attacked with paralysis, which led to his death, Mar. 12, 1868. His *Life and Remains*, by rev. R. H. Story, appeared in 1870.

LEE, ROBERT EDWARD (*ante*), 1807-70; son of col. Henry Lee of Westmoreland co., Va.; b. June 19, 1807; distinguished by the ability of the service rendered against his country as gen. and commander-in-chief of the armies of the confederate states. He graduated with honor at West Point in 1829; was lieut. in the engineer corps 1829-34; from 1834-37 assistant to chief engineer at Washington; in 1835 assistant in running the boundary line between Ohio and Michigan; 1837-41 superintending engineer of the improvements on the Mississippi and Missouri rivers; made capt. in 1838; in 1842 super-

intendent of the construction and repair of the defenses of the harbor of New York, assistant engineer at Washington, and member of the board of Atlantic coast defenses.

On the opening of war with Mexico in 1846, Lee was made chief engineer under gen. Scott, was in the battles of Cerro Gordo, Churubusco, and Chapultepec, and wounded in the latter. From 1852-55 he was superintendent of the West Point military academy. On the formation of a new cavalry regiment in 1855 Albert Sidney Johnston was made col., Robert E. Lee lieutenant-col., Hardee and Thomas majors, Van Dorn and Kirby Smith captains. Thomas is the only one of the number who was true to the national flag when the slave states rose against it. Lee was serving with this regiment in Texas in 1857, when on leave he returned to Washington, where, through his marriage with Mary Custis, great-granddaughter of Martha Custis, wife of Washington, he at that time came into possession of the Arlington estate near Washington. In Oct., 1859, he was ordered to suppress the John Brown raid at Harper's Ferry. From Feb. to Dec., 1860, he commanded the army department of Texas. In Mar., 1861, he was called to Washington by gen. Scott, with whom, during the most of the critical weeks when the secession movement was advancing with tempestuous rapidity at the south, he continued in the most confidential relations as an officer of the United States and a friend. On April 18, while the secession act was pending in the Virginia legislature, he informed gen. Scott that he must resign and go with his state if it seceded. The next day, before Virginia's secession act had passed, he cast the influence of his name into the scale of secession; sent in his resignation to gen. Scott, in a letter filled with grateful recognition of the general's friendship and the kindness of all his superiors in the service throughout his life, but without a word to indicate love of country. He but expresses the deep pain a man may feel at being obliged to take one side or another in a family quarrel—in parting with some dear friends to take side with others. The letter closes with this often quoted expression—"Save in defense of my native state I never again desire to draw my sword." How suicidal and absurd was that state allegiance, time has shown. A letter to his sister, a lady with a higher ideal of patriotism, shows the strange fact that he "recognized no necessity for this state of things." Exerting a wide influence by the native nobility of his character, and devotion to duty, he cast his fortunes with the most violent and determined defenders of human slavery as a divine institution, and became their great military reliance. It is an interesting question as to what mental idiosyncrasy induced a man of Lee's mold to take the step which made him the military hero of the most causeless of wars. The letter written to his sister, on the day when he resigned his commission, shows how little Lee's judgment led him, and how entirely he gave himself up to social considerations and the "states rights" theory. The letter is as follows:

"ARLINGTON, April 20, 1861.

"MY DEAR SISTER: I am grieved at my inability to see you. I have been waiting 'for a more convenient season,' which has brought to many before me deep and lasting regret. Now we are in a state of war which will yield to nothing. The whole South is in a state of revolution, into which Virginia, after a long struggle, has been drawn: and *though I recognize no necessity for this state of things*, and would have foreborne and pleaded to the end for redress of grievances, real or supposed, yet in my own person I had to meet the question *whether I should take part against my native state*. With all my devotion to the union, and the feeling of loyalty and duty of an American citizen, I have not been able to make up my mind to raise my hand against my relatives, my children, my home. I have therefore resigned my commission in the army, and, save in defense of my native state, with the sincere hope that my poor services may never be needed, I hope I may never be called on to draw my sword.

"I know you will blame me, but you must think as kindly of me as you can, and believe that I have endeavored to do what I thought right. To show you the feeling and struggle it has cost me, I send a copy of my letter to gen. Scott, which accompanied my letter of resignation. I have no time for more. May God guard and protect you and yours, and shower upon you every blessing, is the prayer of your devoted brother,
"R. E. LEE."

After Lee had thus crossed the Rubicon to join the southern cause, his wife wrote to a friend: "My husband has wept tears of blood over this terrible war; but he must, as a man and Virginian, share the destiny of his state, which has solemnly pronounced for independence." The key to his betrayal of a patriot's duty lay in his family affection. His wife, from whom he had derived a great estate, exerted a powerful influence over him. The hearts of southern women, like those of the McGregors, beat high for caste and clan. The grandeur of the United States—the great republic of the world—paled before their eyes in the light that shone from the altar of their local prides and loves. Lee was molded in the heat of his immediate surroundings. The question arises whether he could not have molded them instead—casting his influence with such quick and forcible decision for his *entire* country that he would have carried family and friends by the momentum of his own will, instead of being the reluctant victim of their infatuation.

On April 23, 1861, Lee was at Richmond, receiving an ovation in the legislative hall of Virginia on the occasion of the formal confirmation of his appointment by gov. Letcher

to the position of maj.gen. of the forces of the commonwealth of Virginia, which appointment had been made at once on the receipt of news of his resignation from the U. S. army. He remained without any specific command, superintending the fortifications of Richmond with a skill proved by subsequent events. His first operations in the field were against gen. Rosecrans in western Virginia, which were ineffective. He was back to Richmond soon after, and was thence sent to South Carolina to meet the movement of the union forces at Port Royal. The latter part of May, 1862, when McClellan's army was threatening Richmond from the Chickahominy, gen. Joseph E. Johnston was commander-in-chief of the confederate forces. At the battle of the Seven Pines, Johnston being wounded and disabled from command, gen. Lee became the commander of the army of Virginia. Up to this time Lee had never had opportunity to display his ability on the field. He now maneuvered two considerable divisions of his army so as to give the impression that he intended to reinforce Jackson for an attack on Washington. McClellan was completely deceived. Lee suddenly concentrated all his force on the union lines, and in the battles of June 26 and 27 on the Chickahominy, notwithstanding the equal bravery of the army under McClellan, the superior generalship of Lee won a decisive victory. McClellan showed ability in retreat, and conducted the national army to a new line. On the 29th Lee ordered renewed attacks on the retreating army, but so skillfully and secretly had the union army retreated through White Oak swamp, and so resolute and skillful was their defense whenever attacked, that no advantage was gained by Lee's army. McClellan had time to complete his retreat, and on July 2 was intrenched on Malvern Hill. Here a desperate attack was made by Lee to dislodge him, which resulted in a bloody defeat of the rebel forces. Gen. Pope was soon after this put in command of the national armies in Virginia w. of Washington, while gen. McClellan retained position on the James river. Lee, relying on McClellan's inactivity before Richmond, planned to throw his whole available strength against Pope. A series of rapid and unexpected blows fell upon the outer armies under Pope's command, his depot of provisions was captured, and on Aug. 29 and 30, 1862, Pope's main army was signally defeated on the same field of Manassas that witnessed the first defeat of Bull Run. Lee then projected the invasion of Maryland. To use Lee's own words, "the war was thus transferred from the interior to the frontier, and the supplies of rich and productive districts made accessible to our army." On Sept. 7 his entire army was near Frederick City. Lee's tactics were now to draw the union armies after him, and to choose his own ground and time for giving battle. On Sept. 8 he issued an address to the people of Maryland which shows how completely his feelings as a southern man and a slave-holder had dominated his naturally clear judgment. He uses the hackneyed phrases of secession journals in reminding the people of Maryland of their "wrongs"; in alluding to the supremacy of the national power over the local tendency to rebellion as "usurpation." To use his own language, "believing that the people of Maryland possessed a spirit too lofty to submit to such a government, the people of the south have long wished to aid you in throwing off this foreign yoke, to enable you again to enjoy the inalienable rights of freemen, and restore independence and sovereignty to your state." This appeal to personal liberty seems strange in the light of the terrorism towards all adverse opinion which prevailed throughout the confederacy. The proclamation had little effect. It is creditable, however, to gen. Lee that his army, while in Maryland and Pennsylvania, were constrained to avoid all acts not in conformity with civilized warfare.

Gen. McClellan was now re-appointed to the command of the national armies. Sept. 10, 1862, Harper's Ferry was captured by the rebels preparatory to the invasion of Pennsylvania. McClellan followed Lee's movements, keeping the body of his army between Lee and Washington. By good fortune coming into possession of Lee's order of march, he forced the latter to turn. The battle of Antietam was the result. With a greatly superior force McClellan succeeded in inflicting such a blow that Lee was forced to abandon the invasion of Pennsylvania, but his superior generalship prevented the former from obtaining any further advantages as Lee retreated southward. On Nov. 7, 1862, McClellan was relieved of command. Lee had evidently relied much in carrying out his plans either offensive or defensive on the extreme caution of the union commander. The appointment of Burnside gave fresh activity to the national campaign. The government decided to renew the attempt on Richmond via Fredericksburg. Both armies were rapidly drawn southward, and on Nov. 20 Lee was gathering his entire army behind the works of Fredericksburg, while Burnside's covered the hills on the north, facing them. On Dec. 11 Burnside began the attack. On the 12th his army had achieved a good position. On the 13th a heroic assault was directed squarely against the fortified hills of Fredericksburg. It was hurled back with terrible loss to the union army. After this battle the army of gen. Lee was not again molested until the campaign of 1863 opened. Gen. Joseph E. Hooker had been appointed to supersede gen. Burnside, and with a powerful army now declared his intention to make quick work of ousting the confederate army from Fredericksburg. His army was double in numbers that of Lee. On April 29 he had massed six army corps on the n. side of the Rappahannock near Chancellorsville, and should have chosen his own battle-field. The genius of Lee was never more conspicuous than at this time. He took the initiative of attack before Hooker's army was through the "Wilderness," and detaching gen. "Stonewall" Jackson

with 21,000 men to make a long circuit to the rear of the right flank of the union army, he occupied gen. Hooker with menaces in front until the evening of the 30th, when Jackson's attack fell like a thunderbolt from a clear sky on the rear of the union army. The next morning the attack was made real in the front, and such was the paralysis of the union commanders, and such the mastery of the time and place for action on the part of Lee, that the great army of Hooker was already defeated. But while the battle on that field was won, Lee received intelligence that the union gen. Sedgwick, at the head of 20,000 troops, had captured Fredericksburg and was now on the hill in his rear. On May 2 he turned his entire force back and attacked but did not dislodge him. But that night Sedgwick, hearing of the discomfiture of Hooker's army, retreated. On May 4 the whole union army was in full retreat, completely outgeneraled at all points.

Lee now organized his army to renew the invasion of Pennsylvania, and on June 3 commenced the advance with an army of 80,000 men. He maneuvered so as to force Hooker with all his army to follow, but at the same time so attenuated his line as to draw the following characteristic letter from president Lincoln to gen. Hooker: "*If the head of Lee's army is at Martinsburg and the tail of it on the plank-road between Fredericksburg and Charcellorsville, the animal must be very slim somewhere; could you not break him?*" But Hooker was evidently afraid of Lee *anywhere*, and with reason. The entire confederate army was transferred to North Virginia. On June 27 it was concentrated near Chambersburg. Gen. Geo. G. Meade now succeeded Hooker in the command of the national army, now n. of Washington. Lee's entire army was now in Pennsylvania. The national army concentrated towards Gettysburg. There gen. Meade brought Lee to battle and chose the field. On July 1 the battle of Gettysburg began by an unexpected collision between the union cavalry and the head of gen. Hill's column moving from Chambersburg towards Gettysburg. It resulted in the repulse of the union advance, and its retirement to the strong position of Cemetery ridge, s. of Gettysburg. The great battle was begun by Lee, July 2, 1863, at 4 p.m., by a tremendous cannonade followed by an impetuous attack on the right of Meade's position. It failed. The next day gen. Meade anticipated the strong attack to be made on his position, by an early retaking of a position gained by the confederates the day before. On the afternoon of the 3d Lee massed 145 cannon and opened the battle for two hours with their thunder, under cover of which his attacking columns of 15,000 men formed. The attack was all that human bravery could make it; but the column melted before the fire that waited for it; and though its head reached and covered the key of the struggle, the main force of the column was annihilated, and the position quickly retaken. Gen. Lee's noble equanimity was conspicuous in this defeat in the manner of his meeting the disorganized remnant of that returning column, infusing them with his own serene confidence. A retreat was now necessary, but it was deliberate and orderly, and gen. Meade, after his victory, found no place in Lee's army for attack. He maneuvered retreating until s. of the Rappahannock, where he endeavored to bring Meade to battle. But the latter was too wary. Then he advanced and endeavored to get to the n. of the national army, but Meade's counter-movements, prompt and rapid, prevented; and the latter in turn advanced, attacked and captured a part of Lee's force, compelling his retreat to the Rapidan. Here Meade planned an attack by surprise, but Lee received timely information, and when Meade's force confronted him, was in a position too strong to be attacked. With a quickness and boldness peculiar to him, he observed that Meade's army was in a weak position to resist an attack, and planned one for the following day. But the next day Meade and his army were no longer there. "They had disappeared like a phantom," writes gen. Lee's biographer. That ended the campaign of Virginia in 1863.

The "immense campaign" of 1864 for the possession of Richmond was now to test and crown the military fame of gen. Lee. Gen. U. S. Grant, victorious thus far on every field, assumed the personal command of the army of the Potomac. For an entire year all the vast resources at his command were used with that rugged grit that regards no loss of life too great which achieves the quick end of war, and with an energy and skill that all the world acknowledges. Yet during that entire year gen. Lee, with an army small in comparison, by his engineering skill, masterly handling, and invariable readiness, aided by his necessary concentration behind strong defenses, held Grant's army at bay, and yielded at last only as a cube of steel may yield to the last great pressure of a colossal vise. The year was filled with the sickening news of sanguinary battles with small results. Grant was hammering at the front of flint that Lee invariably presented. But the weakening force could but show their heroic valor and the resources of their commander. Gen. Lee surrendered the remnant of the army of Virginia on April 9, 1865. His parting address to his remaining troops is a model of sad dignity and grateful recognition of an army's constancy.

In Mar., 1866, gen. Lee was called before the reconstruction committee of congress to give his views. He was very guarded in the expression of opinions, but gave a hearty approval of what is known as president Johnson's policy. His answers to questions put to him were not particularly instructive, often vague and evasive, and have neither the ring of his military incisiveness nor the breadth of a statesman's view. They indicated his intention to give a mournful acquiescence, but not a support, to the re-formed union, and illy concealed the strength of his social aversion to northerners in

southern society. But it must be stated that the questions put to him were often needlessly painful for him to answer, and called either for a pronounced adhesion to the lost cause, evasion, or renewed loyalty. His answers indicated the middle course.

In person gen. Lee was of the noblest type of manly beauty: tall, broad-shouldered, erect, with a dignity as impressive as that of Washington, yet not so cold; of habits as pure, more warmly religious; with a calm, confident, kindly manner that no disaster could change. The man was molded for the leader of a nobler cause than that of a confederacy whose corner-stone was human slavery. In the fall of 1865 gen. Lee had accepted the presidency of Washington college in Lexington, Va. Its sedentary duties and the habitual sadness of his proud spirit sapped his health, and a congestion of the brain terminated his life, Oct. 12, 1870.

LEE, SAMUEL PHILIPS, Rear-Admiral U.S.N.; b. Va., 1812; entered the navy as midshipman in 1825; was appointed lieut. in 1837, commander in 1855, capt. in 1862, commodore in 1866, and rear-admiral in 1870. He rendered important aid in the capture of New Orleans during the war of the rebellion, being at that time in command of the North Atlantic blockading squadron. In 1864-65 he commanded the Mississippi squadron; 1866-67 he was president of the board to examine volunteer officers for admission to the navy; 1868-70, chief signal officer; commander of the North Atlantic fleet 1870-73, when he retired from active service.

LEE, SOPHIA, 1750-1824; b. London; daughter of an actor, and at 30 years of age wrote a comedy, *The Chapter of Accidents*, the profits of which enabled her to establish at Bath a seminary for young ladies, which was conducted for many years by her with the aid of her sister HARRIET, whose name is inseparably connected with her own in the authorship of *The Canterbury Tales*. Sophia, besides writing most of those tales, was the author of two novels and a tragedy that won a moderate success. Her second comedy was not so fortunate.

LEE, THOMAS, b. Va., about the beginning of the 18th c.; the third son of Richard, member of the council, and grandson of Richard, the cavalier founder of the family in America, who took an active part with Berkeley in securing the allegiance of the colony to the Stuarts. Thomas succeeded to the ancestral estate at Stratford, Westmoreland co. He became president of the council, and his commission as governor had just been signed, when he died, in 1750. By his wife Hannah, daughter of col. Philip Ludwell, a member of the council, he had six sons, all of whom were distinguished for public services rendered during the revolutionary war. WILLIAM, the fifth son, went to England as agent of Virginia, was elected sheriff of London in 1773 and alderman in 1775. He was afterwards diplomatic agent of the United States at the Hague, Vienna, and Berlin. He was recalled in 1779, and died at Green Spring, Va., June 27, 1795.

LEECH LAKE, in n. Minnesota, about 7 m. s. of lake Cass. It is nearly 20 m. long and 15 m. broad. It has an elevation of 1330 ft., and discharges its waters by a short outlet into the Mississippi.

LEEDS, a co. in e. Ontario, Canada, having the St. Lawrence river for its s. and s.e. boundary; bounded on the n.w. by Rideau lake, and has other lakes of considerable size; 900 sq.m.; pop. 35,302. Through lake Rideau passes the Rideau canal, connecting Ottawa with Kingston on lake Ontario. The Rideau river takes its rise in the lake, emptying into the Ottawa river. The Cataraqui river also has its source in lake Rideau, emptying into lake Ontario at Kingston. Its surface is uneven. The soil is productive of wheat, oats, potatoes, corn, and rye. Its inhabitants are engaged in farming, manufacturing, and mercantile pursuits. The Brockville and Ottawa branch of the Canada Central railway has its terminus at the county-seat, and its s. and s.e. border is traversed by the Grand Trunk railway. Its capital is employed in foundries and machine-shops, tanneries, manufacture of stoves and white lead, flour and saw mills, and the making of buck and kid mits. Seat of justice, Brockville.

LEEDS, JOHN, 1705-90; b. Talbot co., Md.; served for forty years as clerk of the county and judge of the provincial court; in 1760 was appointed commissioner to supervise the returns of Mason and Dixon of the boundaries of Maryland and Pennsylvania. In 1769 he contributed to the *Philosophical Transactions* a paper on *The Transit of Venus*. He was appointed surveyor-gen. of Maryland, and performed the duties of that office until his death.

LEELANAW, a co. in central Michigan, surrounded by water on all but its southern border, is bounded on the n. and n.w. by lake Michigan, on the e. by Grand Traverse bay and West bay; 340 sq.m.; pop. '80, 6,253. It is drained by the Platte river, flowing into lake Michigan, and has two large picturesque lakes. Its surface is level, and well supplied with forests of sugar maple, beech, and hemlock. Its leading products are buckwheat, barley, oats, corn, rye, wheat, cattle, sheep, and swine. Its manufactures are not extensive, its fisheries claiming more attention. Seat of justice, Northport.

LEEMANS, CONRADUS, b. in the province of Gelderland, 1809; studied theology and archæology at the university of Leyden, and in 1835 was appointed first conservator at the museum of antiquities in that city. He devoted himself successfully to the task of gathering and arranging all the archæological treasures of the city, and in 1839 was appointed director of the museum. At the same time he was commissioned by

the governor to found an ethnographical museum, with which Siebold's Japanese collection was incorporated. He wrote historical and critical descriptions of the articles in the museum, especially of those belonging to the department of Egyptian antiquities.

LEES, FREDERICK RICHARD, b. 1815, near Leeds, Eng.; connected himself at the age of nineteen with the total abstinence enterprise, in which he soon became a prominent advocate. He received, 1841-44, several prizes for essays on his favorite subject, and in 1856, £100 from the United Kingdom alliance for an argument in favor of prohibiting the liquor traffic by legislation. He held public discussions with physicians. At the "world's temperance convention" in New York in 1853 he was a delegate from the British "temperance association" of the north of England. In 1860 he received a testimonial of 1000 guineas from friends of his cause in Great Britain. He published *The Metaphysics of Owenism dissected; a Treatise on Logic, or the Methods, Means, and Matter of Argument; History of Alcohol*. He edited for several years *The Truth Seeker in Literature, Philosophy, and Religion*.

LEESER, ISAAC, 1806-68; b. Westphalia. He emigrated to Richmond, Va., in 1824, and engaged in commercial pursuits, but in 1829 was appointed rabbi of a Jewish synagogue in Philadelphia. He published *The Jews and the Mosaic Law; Discourses, Argumentative and Devotional; Portuguese Form of Prayers; Descriptive Geography of Palestine*, from the Hebrew of rabbi Joseph Schwartz; and a *Translation of the Holy Scriptures* (Jewish) from the *Original Hebrew*. In 1843 he established *The Occident and American Jewish Advocate*, a monthly periodical; in 1850 retired from the ministry.

LEETE, WILLIAM, d. 1683; b. in England early in the 17th c.; emigrated to America in 1637; was an early settler in New Haven, Conn., and one of the founders of the town of Guilford. He was governor of the state 1661-65, and frequently a commissioner of the colonies between 1655 and 1679. He harbored and defended the regicides Goff, Whalley, and Dixwell in 1661, and was again elected governor in 1676, and annually thereafter until his death, at Hartford, 1683.

LEFEBVRE-DESNOUETTES, CHARLES, Comte, 1773-1822; b. Paris; entered the French army, serving in Belgium in 1792, and afterwards as aid-de-camp to Napoleon at Marengo; distinguished himself at Austerlitz; in 1806 was made brigadier, and in 1808 general of division; at the siege of Saragossa was taken prisoner by the English, but escaped from England and took part in the Austrian, Russian, and German campaigns, and in defending France from invasion in 1804. He fought at Fleurus and Waterloo, and was made a peer by Napoleon in 1815. Being condemned to death by the royalists, he escaped to the United States, and united with baron Lallemand in the effort to establish a colony of French refugees in Alabama. He entered into correspondence with Napoleon at St. Helena with a view to effecting his rescue, and for his services received by the will of the emperor the sum of 150,000 francs. While on the voyage to France he was lost at sea near the Irish coast.

LE FÈVRE, FAVRE, or FABER, PIERRE, 1506-46; b. Savoy; was one of the nine original coadjutors of Loyola in the establishment of the order of Jesuits. He came of a peasant family, but was educated at the university of Paris, and at the college of Ste. Barbe, where he lectured on philosophy. Loyola was his pupil. He passed his ordination as a priest in 1534, and three years later induced the pope to permit Loyola and his companions to visit Palestine. He received the appointment of professor of theology in the Sapienza college in Rome in 1537, and the next year was sent to Parma on a special mission for reformation of the diocese. He afterwards visited Germany, where he conducted public disputations with the reformers; and in Spain and Portugal regulated the Jesuit college newly founded at Coimbra; and in Madrid, Valladolid, Valencia, etc., founded others. In 1546, on his way to join the council of Trent, he was seized with a violent fever, from which he died. After his death he was canonized, and a chapel erected in his memory.

LE FLÔ, ADOLPHE CHARLES EMMANUEL, b. France, 1804. He was sent as ambassador to Russia from the French republic after the revolution of 1848; returned to Paris in 1849 an adherent of Louis Napoleon, but opposed his treachery to the republic. He was arrested after the *coup d'état* that made Napoleon dictator, and soon after banished; but allowed to return in 1859. After the fall of Napoleon, during the German war he was a short time minister of war, but resigned to take again the position of minister to Russia.

LE FLORE, a co. in n.w. Mississippi, formed since the census of 1870, of portions of the counties of Carroll and Sunflower; 560 sq. miles. Two branches of the Yazoo river unite in the central portion to form that stream, which is navigable to the county-seat of Greenwood. At this point steamboats are loaded with cotton, the staple product, to go down the river. Its soil is fertile when not subject to overflow, and its surface is diversified by dense forests growing on the river borders. The Yazoo river forms its southern boundary, where by dividing, and afterwards uniting some miles below, it forms Honey island. Seat of justice, Greenwood. Pop. '80, 10,246.

LEFT, THE; or THE MOUNTAIN (French, La Gauche, or La Montagne). See POLITICAL PARTIES, FRENCH.

LEFTWICH, JOEL, 1759-1846; b. in Bedford co., Va.; was a soldier in the revolutionary war, fighting gallantly at Germantown, Camden, and Guilford, and being severely wounded at the latter place. In the war of 1812 he commanded a brigade under gen. Harrison at fort Meigs; was afterwards a maj.gen. of militia, and frequently a member of the Virginia legislature.

LEGACY (*ante*). Legacies are of various kinds; as, absolute, to vest at once unconditionally; conditional or contingent, limited to take effect upon some event which may or may not take place; demonstrative, to be paid out of a specified fund; model, where the will contains directions as to the way in which the legacy shall be applied to the use of the legatee; residuary, of all the personal property of the testator, not otherwise disposed of, etc. In regard to the construction of legacies, the rule is that the plain intent of the testator as collected from the whole will shall be carried into effect. Where the legatee is incorrectly described, the error may be corrected if a reference to the will itself clearly make out the testator's intent; but parol evidence is inadmissible to remedy such misdescription unless it appear that there are two persons to whom the description in the will may apply. Where a bequest is made to children, the term, unless otherwise specified, is held to mean children at the time of the testator's death, and to include a child in its mother's womb, but not illegitimate children when there are legitimate children who answer the description in the will. Whenever the estate is unable to discharge the debts and specific legacies, the general money legacies are abated proportionately; and specific legacies are themselves liable to be abated if the debts be not yet discharged. Legacies are subject to ademption, i.e., to be destroyed or withheld on account of some act of the testator indicating an intention to revoke the bequest; thus, where a testator gives a legacy to a child and afterwards makes a settlement on her, the settlement is regarded as an ademption of the legacy. When two legacies are given to the same person, the question arises whether he shall take both. It has been held that where two legacies of unequal value are given to the same person by one will, or where legacies of equal or unequal value are given to the same person by different wills, he is entitled to receive both legacies; where the same thing is given twice, or legacies of equal value are given to the same person by the same will, he is entitled to receive but one legacy. Where a testator gives a legacy to his debtor as much as or more than the debt, the legacy, in the absence of evidence to the contrary, is presumed by courts of equity to be in satisfaction of the debt; but a legacy to a debtor will not constitute a release of the debt unless it be clearly shown that such is the intention of the testator.

LEGAL TENDER. See MONEY.

LEGARÉ, HUGH SWINTON, 1797-1843; b. Charleston, S. C.; of Huguenot extraction. He studied law for three years, and then visited Edinburgh, where he completed his education, traveling afterwards on the continent. Returning home, he devoted himself to farming for a time, near Charleston, and then began the practice of law in that city. He was elected to the legislature of South Carolina, and was afterwards attorney-general, being at the same time editor of the *Southern Review*. In 1832 he was sent to Belgium as *chargé d'affaires*; was a member of Congress from 1837-39; and from 1841 until his death, was attorney-general of the United States. He favored state rights, but was an opponent of nullification. His writings, collected and edited by his sister, were published in 2 vols. after his death.

LEGATE AND LEGATION (*LEGATE, ante*). As commonly used in modern times the word legate is applied to the person charged by the pope of Rome to represent him, or the Roman church, at the seat of government of a foreign country, or at the seat of a bishopric of the church. But the word need have no such restricted use. It was employed by the Romans under the republic, before the church controlled Rome, to indicate any person sent by the government on a special mission of importance to another government, or even to a conquered province; when a legate frequently became acting governor by virtue of such commission. *Legatus* among the Romans was a synonym of ambassador. Envoy-extraordinary, legate, ambassador, are three words signifying nearly the same thing: the first two indicating a fresh or special appointment for a specific object, and the last a more permanent mission. The term legation includes all that appertains officially to the position of a legate, an ambassador, or an envoy-extraordinary, viz., his secretaries, attachés, family, and residence. We speak of the residence of the American legation, but by "a call at the legation" one may mean a call on any officer or any of the families of the officers of the legation, meaning then by legation the seat of residence of its members.

LEGGE, JAMES, LL.D., b. Huntly, Aberdeenshire, in 1815; graduated at King's college and university in 1835; studied subsequently at Highbury theological college, London, and received from the university of Aberdeen the degree of LL.D. in 1870. In 1839 he was appointed by the London missionary society a missionary to the Chinese, and reached Malacca in Dec. of the same year. In 1840 he took charge of the Anglo-Chinese college founded by the rev. Dr. R. Morrison in 1825. In 1843 he removed to Hong-Kong, where he discharged missionary duties, and officiated as minister of the English union church until 1867, when he visited England. While in England he was presented by the government of the colony with a service of plate "in acknowledgment of many

valuable public services freely and gratuitously rendered." He was presented also by many of the Chinese inhabitants with a valuable and beautiful silver tablet, made after the Chinese fashion. In 1870 he returned to Hong-Kong. In 1875 some gentlemen connected with the China trade formed themselves into a committee to establish a chair of the Chinese language and literature at Oxford, to be occupied first by Dr. Legge. The university responded to the proposal, and the chair was constituted in Mar., 1876. Dr. Legge took a prominent part in the discussions held in 1847, in China, about the proper rendering in Chinese of the words God and Spirit, and published a volume in 1852 under the title of *The Notions of the Chinese concerning God and Spirits*. His chief work is an edition of the Chinese classics with the Chinese text, a translation in English, notes critical and exegetical, and copious prolegomena. He was led to prepare this, he says, in 1841, from a conviction that he "should not be able to consider himself qualified for the duties of his position until he had thoroughly mastered the classical books of the Chinese, and had investigated for himself the whole field of thought through which the sages of China had ranged, and in which were to be found the foundations of the moral, social, and political life of the people." His plan was to embrace what are called "the four *Shu*," and "the five *King*." The *Shu* were published in 2 volumes in 1861. Three of the *King* have been published, and with these are translations of various other important ancient Chinese works. For these works the Julien prize, on occasion of its first award, was given to Dr. Legge by the *Académie des Belles Lettres et Inscriptions* of the institute of France in 1875. He attended the congress of orientalisists at Florence in 1878.

LEGGETT, MORTIMER D., b. Ithaca, N. Y., 1831; emigrated to Ohio in 1847, where he entered the legal profession, settling at Zanesville. He was superintendent of schools in that city at the beginning of the rebellion in 1861, when he raised an infantry regiment, of which he was appointed col. in Jan., 1862. He led this regiment, the 78th Ohio, at Fort Donelson, Pittsburg Landing, and Corinth. He commanded at the capture of Jackson, Tenn., and defended Bolivar against a superior force. He was made brig.gen. of volunteers in 1862; was severely wounded at Champion Hills and Vicksburg, but took part in the Atlanta campaign and in Sherman's march to the sea, and for gallant conduct in the latter was brevetted maj.gen., and afterwards promoted to a full major-generalship. He was appointed commissioner of patents in 1871.

LEGGETT, WILLIAM, 1802-39; b. New York; educated at Georgetown, D. C.; was midshipman in the navy. 1822-26; published in 1825 *Leisure Hours at Sea*, a volume of poems written while in the navy; became in 1828 editor of the *Critic*, a weekly journal, which was afterwards united with the *New York Mirror*. Several articles of his which appeared in the *Mirror* and other magazines he subsequently published in a volume with the title of *Tales by a Country Schoolmaster*, which was followed by *Sketches at Sea*. In 1829 he became one of the editors of the *Evening Post*, continuing till 1836. He denounced those who mobbed the abolitionists in 1835, earnestly defending the right of free discussion. Retiring from the *Post*, he established the *Plaindealer*, a weekly journal, which had a large circulation, but was continued only a year. In 1839 he was appointed by president Van Buren diplomatic agent to Guatemala, but died suddenly at New Rochelle while preparing for his departure. Two volumes of his *Political Writings* were published after his death, with a memoir by Theodore Sedgwick. Mr. Leggett was a fearless advocate of freedom of opinion and discussion, and Mr. Bryant wrote a highly eulogistic poetical tribute to his memory.

LEGHORN, a province of Italy, comprising a city of the same name, on the w. coast in the division of Tuscany, with the island of Elba in the Mediterranean sea, between that country and the island of Corsica, and bounded on the e. by the channel of Piombino. The surface of the island of Elba (17½ sq.m.; pop. '72, 21,755) is hilly, and the soil is very fertile. Much attention is paid to the cultivation of fruit, and especially the vine. Iron ore is found. The n.e. portion of the province, containing the city of Leghorn, is a point of land projecting into the sea; 109 sq.m.; pop. '72, 97,096—10,000 Jews.

LEGION, THEBAN, according to tradition, a number of Christians, who, about A.D. 286, submitted to martyrdom rather than attack their brethren or sacrifice to the gods. This occurred during the persecutions by the emperor Maximin. Maurice, the leader of the league, was canonized.

LEGOUVÉ, GABRIEL ERNEST WILFRID, b. Paris, 1807; son of Gabriel Marie; adopted the profession of his father, and wrote miscellaneously, but chiefly for the stage. His most important work, *Adrienne Lecouvreur*, was written in association with Scribe and played by Rachel. He also composed a version of the story of Medea, in which the great tragedienne refused to perform, being heavily fined by her manager in consequence. Legouvé became a member of the academy in 1856.

LEGOUVÉ, GABRIEL MARIE JEAN BAPTISTE, 1764-1812; b. Paris; was a poet of ability and erudition, wealthy by inheritance, who devoted his life to literature. He wrote several tragedies, which met with success, and one of these, *Epicharis et Néron*, was dignified by the performance of the great actor Talma in the character of the tyrant. His *Henri IV.* and *La Mort d'Abel* were highly esteemed, and he wrote also several poems of merit. He was a member of the institute, and professor of Latin

poetry. The latter part of his life was rendered unhappy by domestic affliction and other troubles, and in 1810 he became deranged and was placed in a private asylum, where he died.

LEGRAND DU SAULLE, HENRI, a French physician; b. in Dijon, 1830; of high authority on the treatment of the insane. His work, *Dé Folie Devant les Tribunaux*, was awarded an academical prize. His essay on *Le Délire des Persécutions*, suggested by the rancor of retaliation against the commune, attracted general attention.

LEH. See LE LEH, *ante*.

LEHIGH, a co. in s. Pennsylvania, having the Lehigh river for its n. and n.e. boundary; drained also by Jordan creek, running south-eastward, and emptying into the Lehigh river at Allentown; 341 sq.m.; pop. '80, 66,220. Its surface is diversified and has features of great natural beauty, with comparatively little woodland. Its n.w. border is defined by the Kittatinny, or Blue, mountain and valley, the latter remarkable for its beauty and fertility. In the extreme s.e. is South mountain. It contains Delaware Water Gap in the extreme northern portion, a celebrated resort for tourists, where the Delaware river passes through a narrow gorge in the Blue mountains, 3 miles in length, whose sides rise 1400 ft. above the water, and whose rocks are composed of Silurian limestone, Medina sandstone, and slate. It contains zinc and iron mines, and extensive iron works, furnaces, rolling mills, and iron foundries. Value of pig iron in 1870, \$6,194,970. It had, in 1870, 23 iron mines, employing 383 hands (140 underground), with a capital of \$223,447, and annual product of \$384,168. It had 12 stone quarries, employing 95 hands, with a capital of \$28,700 and annual product \$59,995. Its leading industries are the manufacture of carriages, bricks, clothing, leather, tin, copper, and sheet-iron ware. Among its manufactories are breweries, tanneries, refined petroleum and currying establishments, saw and flour mills. It had, in 1870, 694 manufacturing establishments, employing 5,345 hands, with a capital of \$10,276,247, and an annual product of \$15,480,848. Its soil is fertile and produces fruit, wheat, and all kinds of grain. Cash value of farms in 1870, numbering 3,045, \$23,555,476. Value of all live stock in 1870, \$1,949,157. It is intersected by the Lehigh Valley railroad, the Lehigh and Susquehanna, the East Pennsylvania branch of the Philadelphia and Reading railroad, and the North Pennsylvania railroad. Seat of justice, Allentown.

LEHIGH RIVER, in e. Pennsylvania, rising in the s.w. extremity of Pike co., flows s.w. to the Blue ridge, 12 m. below Mauch Chunk, passing through a gorge of the Kittatinny mountain, then s.e. to Easton, uniting at that point with the Delaware. It is nearly 120 m. in length, and by skillful engineering it has been made to float steamboats from Whitehaven, 84 m. from its mouth. It is a swiftly flowing stream passing through a rich anthracite coal, iron, and lumber region, winding among sterile mountain ranges, through narrow ravines, and over level, fertile plains. Its course is parallel with the railroad of the Lehigh coal and navigation company from Mauch Chunk to Easton.

LEHIGH UNIVERSITY, in South Bethlehem, Northampton co., Penn., was founded in 1865 through the liberality of Asa Packer, who gave 56 acres of land as a site and endowed it with the sum of \$500,000. It is a Protestant Episcopal institution. Number of professors in 1878, 14; students, 113. President, John M. Leavitt, D.D.

LEHMANN, CHARLES ERNEST RODOLPHE HENRI, b. at Kiel, in Holstein, 1814; received his first instruction in painting from his father, but afterwards went to Paris, where he was the pupil of Ingres, and began to exhibit in 1835. His pictures are remarkable for brilliancy of color, and for a certain poetic quality which appeals strongly to the imagination. The Bible and Greek literature have afforded him his best subjects. He has also painted some excellent portraits of eminent men.

LEIBNITZ, GOTTFRIED WILHELM VON (*ante*), not only one of the most remarkable examples of universal scholarship, but also of early acquirement, excelling in precocity the prodigy Chatterton; for, although he did not reach maturity as soon as Chatterton, he excelled him in mental power and acquirements at an early age. At a period when the latter was merely a brilliant writer, Leibnitz was a philosopher and had solid acquirements. Before he was 12 years old he was quite familiar with many Latin authors, and was also making critical readings of Bacon and Descartes as compared to Aristotle and Plato, and was forming theories which embraced the idea of the unity of all the sciences. His treatise *De Principio Individuæ*, which was produced on becoming bachelor of philosophy at the age of 17, is the most wonderful example of early erudition and power of thought on record. The refusal of the faculty at Leipsic to grant him the degree of doctor of law was, according to some, only ostensibly on account of his youth, really because of ill-will entertained towards him, and which caused him to leave his native city forever. Previous to meeting the baron von Boineburg he became acquainted with a society of Rosicrucians and alchemists at Nuremberg, and as their secretary recorded their experiments and searched the alchemic authors for evidences of the philosopher's stone. It would require a large volume to contain brief notices, not to speak of commentaries, on all his works. His visit to Paris in company with the sons of Boineburg resulted in his acquaintance with Huygens and Cassini—the one the greatest continental physicist, and both the most accomplished practical astronomers of

that time. He also visited Newton in England, and must have obtained from these sources many ideas which aided him in forming his system of the calculus. At Paris, especially, he devoted himself to mathematics and physics. He was an especial friend and admirer, and indeed pupil, of Huygens, although the latter did not follow the methods of the calculus until his old age because of his wonderful facility in the older methods. The genius of Leibnitz must have been colossal, but his domain was too vast to admit of undisputed sway, and some of his doctrines require the support of reasoning which is not sufficiently grounded in established truths. There is a certain degree of unwarrantable assumption and hypothesis involved in the doctrine of monads, and his doctrine of pre-established harmony, as briefly noticed in the foregoing article, is not as well grounded in logical data as many more recent works on metaphysical or philosophical subjects, although exhibiting wonderful talent in giving verbal form to brilliant ideas. Many of his ideas had been formed in his youth, and notwithstanding his immense intellectual ability, they must have been in some degree, it may be justly said, crude; for if modern biological science has demonstrated anything, it is the fact that a certain length of time—more than 25 years—is required to allow of the development of any brain as an efficient organ of extensive thought; and this remark is justified by the fact that his doctrine of monads, of pre-established harmony, and of optimism, have resulted in no positive advancement in mental or physical science. The doctrine of monads, besides being inconsistent with the tenor of much else that he wrote, may indeed be taken as one of the foundations of materialism; at least, some of the hypotheses contained in it may be so used. If his hypothesis that to arrive at the essential power of matter (and he concedes that it possesses inherent power) we must proceed to its ultimate elements, be well founded, then the doctrine of evolution is easily maintained—a doctrine which, although not demonstrably inconsistent with that of optimism, or of pre-established harmony, is opposed to ideas assumed in many other portions of his writings. For instance, at the congress of Nimeugen, in 1677, he produced a treatise in which he defined theology as the jurisprudence of God, and maintained, although not a Roman Catholic, that all the states of Christendom should form but a single body, with the pope for its spiritual and the emperor for its temporal head. To uphold many of his philosophical ideas he maintained that logical truth is equivalent to actual truth, and that ideas are identical with things; and this is a logical deduction from the premises that an ultimate particle, or rather its attenuation, like a monad, possesses the power of thought. From this also naturally flows the idea that any abstract conception which involves no contradiction with reason must be absolutely true. The doctrine of monads is essentially a mystical one, and may be taken as the nidus for the evolution of many hypotheses or theories. If, as Leibnitz maintained, monads be the simple, active elements of things, the veritable living atoms of nature, the final forces of the universe, uninfluenced from without, but continually changing by an inward principle in consequence of which they develop themselves spontaneously, and if they be, properly speaking, souls, each independent of the other, and also a microcosm of the whole universe, we have elements out of which may be formed various evolution hypotheses, preordained harmonies, or simple pantheism. God, he says, is the original monad, from which all the rest are generated. To maintain some of his positions he considers that there are two kinds of monads, conscious and unconscious, and that God has so perfected all things that all the monads in the universe work together to accomplish that for which they were intended. This harmony results from the nature of monads, as well as from a pre-established divine decree. A harmony therefore follows between all parts of matter, between the future and the past, and between divine decrees and human actions; and one physical cause follows another in preordained sequence. The doctrine of optimism naturally follows from these conclusions.

LEICESTER, SIMON DE MONTFORT, Earl of. See MONTFORT, SIMON DE, *ante*.

LEICHHARDT, LUDWIG, 1813-48; b. at Trebitsch, in the Prussian province of Brandenburg; studied philology, medicine, and natural science at Göttingen and Berlin; traveled in Italy, France, and England, and in 1841 went to Australia, where he won great distinction as an explorer. His *Journal of an Overland Expedition in Australia from Moreton Bay to Port Essington* was published in 1847. At the close of that year he started to go across the Australian continent from e. to w., but died on the way. His life, by Zuehold, appeared in 1856.

LEIDY, JOSEPH, b. Philadelphia, 1823; graduated from the medical department of the university of Pennsylvania in 1844, and thenceforward devoted himself to biological studies, especially comparative anatomy and vertebrate paleontology, on which he published valuable papers in the *Proceedings* of the academy of natural sciences in Philadelphia, in the *Transactions* of the American philosophical society, and in the *Contributions to Knowledge* of the Smithsonian institution. In 1853 he was appointed professor of anatomy in the university of Pennsylvania, and in 1871 professor of natural history in Swarthmore college. During the war of the rebellion he served with distinction as surgeon of Satterlee hospital in Philadelphia. Among his works are: *Flora and Fauna within Living Animals*; *Memoir on an Extinct Species of American Ox*; *Ancient Fauna of Nebraska*; *Memoir of the Extinct Sloth Tribe of North America*; *Cretaceous Reptiles of*

the United States; and Contributions to the Extinct Vertebrate Fauna of the Western Territories.

LEIGH, BENJAMIN WATKINS, LL.D., 1781-1849; b. in Chesterfield co., Va.; graduated at William and Mary college; entered the legal profession, practicing successively at Petersburg and Richmond, and served as reporter of the court of appeals. He was frequently chosen to the legislature, and served as commissioner to revise the statutes of the state, and also to adjust questions in dispute with Kentucky. In 1835 he was elected to the U. S. senate, where he took a prominent position, but resigned in 1837. He published 12 vols. of reports of the court of appeals and general court of Virginia.

LEIGH, EDWARD, 1602-71; b. England; educated at Oxford and studied law in the middle temple. In 1636 he entered parliament, became a col. in the parliamentary army during the civil war, and soon afterwards a member of the Westminster assembly of divines. In 1648 he was turned out of parliament for favoring a reconciliation with the king. During the remainder of his life he was engaged in the study of theology, and published the following works: *A Body of Divinity*, London, 1654; *Annotations on the Five Poetical Books of the Old Testament*, London, 1657; *Annotations upon all the New Testament*, London, 1650; *A Treatise of the Divine Promises*, London, 1653; *Critica Sacra*, London, 1662; *A Treatise of Religion and Learning and of Religious and Learned Men*, London, 1656.

LEIGHTON, ALEXANDER, 1568-1644; b. Edinburgh, Scotland; educated in the university there, and was professor therein of moral philosophy from 1603 to 1613, when he became a Presbyterian preacher in London, practicing medicine at the same time. He published *Speculum Belli Sacra, or The Looking-Glass of the Holy War*; and an *Appeal to the Parliament, or Sion's Plea against the Prelacie*. The latter was deemed libelous in respect of the king, queen, and bishops, and he was twice sentenced by the star-chamber to be publicly whipped, to lose both ears, to stand twice in the pillory, to be branded on the cheek with the letters S. S. (sower of sedition), to pay a fine of £10,000, and suffer perpetual imprisonment in the fleet. The Long parliament released him in 1640, after he had been confined for 11 years. He was awarded a pecuniary indemnity, and in 1642 was made keeper of Lambeth palace as a state prison, where he died.

LEIGHTON, FREDERICK, b. at Scarborough, England, 1830; learned drawing in Rome, entered the royal academy at Berlin as a student in 1843, finished his education at Frankfort and went to Brussels, where, in 1848, he produced his first painting, "Cimabue Finding Giotto Drawing in the Fields." After studying further at Paris and Frankfort he went again to Rome, where he reproduced the "Cimabue" for exhibition at the London royal academy in 1855. The picture was so successful as to be purchased by the queen. He has gained great distinction in his art, and among his works are: "Triumphs of Music;" "Scene from Romeo and Juliet;" "Star of Bethlehem," "Michael Angelo Nursing his Dying Servant;" "Helen of Troy;" "David;" "Syracusan Bride Leading Wild Beasts to the Temple of Diana."

LEIPSIC, COLLOQUY OF. The disputes in the 16th c. between the Lutherans and Calvinists having become very acrimonious, and attempts at reconciliation by several persons having been unsuccessful, the authorities and the people were convinced that greater efforts should be made to secure, if not unity, at least peace and harmony between the two churches. A conference was proposed by the theologians of Hesse and Brandenburg to those of Leipsic. The elector George of Saxony having sanctioned the plan of a private conference, the meetings commenced Mar. 3, 1631, at the residence of the upper court preacher, and, under his presidency, were held daily until Mar. 23. The confession of Augsburg was adopted as a basis, and every article examined separately. They agreed on the articles V. to VII. and XII. to XXVIII., but differed as to III., the Lutherans maintaining that not only the divine but the human nature of Christ possessed omniscience, omnipotence, etc., by virtue of the union of the two natures in his person, and that the glory which Christ received was only by his human nature; the reformers, on the contrary, denying that Christ, as man, was omniscient and omnipresent. On the tenth article they could not agree, the reformers denying the physical participation in the body and blood of Christ in the eucharist, and asserting a spiritual participation by faith. The reformers desired, if they could not agree on this point, that the two parties should be charitable to each other, and unite in opposition to Romanism. The Lutherans said the proposition must be further considered in the fear of the Lord. On the article concerning election, the reformers based election on the will of God, and reprobation on the unbelief of man; while the Lutherans regarded election as the result of God's prescience of the faith of the elect. No decided and permanent benefit resulted from the colloquy.

LEISLER, JACOB, b. Frankfort, Germany; d. in New York, 1691; was in the military service of the Dutch E. I. company, and in 1660 came to America, and went into business on his own account. He was for a time a resident of Albany, where he became concerned in some church troubles, out of which grew litigation and contention which affected both his moral and financial standing. He afterwards settled in New York, and in 1678 sailed for Europe, but was captured by pirates, and only regained his liberty

on the payment of a heavy ransom for those days—2,050 pieces of eight, or Spanish dollars. He returned to New York, and five years later was appointed a commissioner of the court of admiralty. In 1688, Francis Nicholson being governor of the province, Leisler took advantage of the English revolution to attempt an overthrow of the local government and the seizure of the administration. He overcame the party favorable to king James, declared for the prince of Orange, and seized the fort and confiscated the public funds. He planted a *battery* of six guns within the fort—thus giving the name to that portion of the island which it has borne ever since—and then proceeded to invest the northern part of the province, having been appointed commander-in-chief by the committee of safety. In Dec., 1689, he assumed the title of lieut. gov. under an indefinite dispatch from William and Mary, and refused to acknowledge the authority of gov. Sloughter on the latter's appointment to that office. He was accordingly seized and imprisoned, and, on a trial for murder and high treason, was condemned to death, which sentence was executed in New York, May 16, 1691. Leisler's condemnation was considered to have been unjustly effected, and the act of attainder which was passed upon him was afterwards reversed, his heirs indemnified through the influence of gov. Bellamont, and his remains exhumed and honorably reinterred in the Dutch church in Garden street, New York. In 1689 Leisler purchased for the Huguenots the tract called New Rochelle, in Westchester co., N. Y. The petition of his son, which, with other documents referring to this history, is to be found in the *Documentary History N. Y.*, vol. xi., sets forth the nature of the labors of Jacob Leisler, sen., in behalf of the interests of William and Mary, and in behalf of the Protestant religion, and presents the case on which the act of attainder was eventually rescinded.

LEITHA (*ante*), a river in Austria, forming part of the western limit of Hungary, dividing it from Lower Austria. Flowing into the river Raab, a branch of the Danube, it forms an island on which is situated the market-town of Altenburg, in Hungary, 47 m. s.e. of Vienna. It rises at Haderswerth, between Cisleithania, in Lower Austria, and Transleithania, in Hungary, the etymology of their names being attributable to its vicinity. It makes its course along a valley of the Leitha mountains, which rise from 1500 to 2,000 ft. between it and the Neusiedler-See, passing through them into Hungary. It is a sluggish stream, its course lying among marshes and fertile plains. Its waters furnish an abundance of fish.

LEITNER, GOTTLIEB WILLIAM, PH.D., b. at Pesth, Hungary, 1830. His father, a German physician, becoming involved in the revolution of 1849, went to Turkey, where Gottlieb, who had been well instructed in the classics, became master of the Turkish, Arabic, and modern Greek. He also learned English, French, and Italian at the British college in Malta, and was interpreter to the English commissariat during the Crimean war. After the war was over he went to London, was naturalized as a British subject, and accepted an appointment as professor of oriental languages and Mohammedan law in King's college. In 1864 he was appointed director of a college at Lahore, in the Punjab. In that country he founded many societies, schools, public libraries, and colleges, and established several newspapers, thus setting in play large influences for the enlightenment of the people. He organized the Punjab university upon a solid basis. He also found time to engage in the exploration of Thibet and the other countries n. of the Himalayas, discovering Dardistan, with its interesting group of languages. He also extended his philological researches to the languages of Cabool, Cashmere, and Badakhshan, and sent to the Vienna exposition an extensive collection of Central Asiatic antiquities. His principal works, besides numerous contributions to the collections of learned societies in England and upon the continent, are a *Philosophical Grammar of Arabic*, in the English, Urdu, and Arabic languages; *The Races of Turkey*; a *Comparative Grammar of the Dardu Languages*; *History, Songs, and Legends of Dardistan*; and *Græco-Buddhist Discoveries*.

LE JEUNE, PAUL, 1592–1664. He went to Canada in 1632, as first superior of the Jesuit missions, remaining in that position till 1639; and on his return to France was procurateur of foreign missions. He was editor of some of the Jesuit *Relations*.

LE KAIN, HENRI LOUIS CAIN, 1728–78; b. Paris. Voltaire was attracted to him by witnessing his early attempts in amateur representation, and procured for him an opportunity to appear in the Theatre Français, where he achieved a distinguished position in spite of great opposition, and faults which his genius at last overcame. He ranks among the most eminent French tragedians. His great rôles were in the tragedies of Voltaire. His *Mémoires* were reprinted in Paris under the direction of Talma in 1825.

LELAND, CHARLES GODFREY, b. Philadelphia, 1824. After graduating at Princeton in 1846, he traveled in Europe, and continued his studies at the universities of Heidelberg, Munich, and Paris. He was in the latter city during the outbreak in Feb., 1848, and joined the students of the Latin quarter behind the barricades. Returning to America the same year, he prepared for the bar, but concluded to devote himself to a literary career. He wrote at first for the periodicals, *Graham's*, *Sartain's*, and the *Knickerbocker* magazines, and edited the first of these at one time. He has made a study of the Gypsy or Rommany language and history, and of dialect writing. He has also obtained reputation as a German scholar. It is probable, however, that Mr. Leland's

fame will rest chiefly on his work as a humorist, in which capacity he has contributed freely to American literature. He has published *Sketch-Book of Meister Karl*, 1855; *The Poetry and Mystery of Dreams*, 1855; *Pictures of Travel*, translated from the German of Heinrich Heine, 1855; *Heine's Book of Song; Sunshine in Thought*, 1862; *Legends of Birds*, 1864; *Hans Breitmann's Ballads*, 1867-70; *Poems*, 1871; *Egyptian Sketch-Book*, 1873; *English Gypsies and their Language*, 1873; *Fu-Sang*, 1874; and *English Gypsy Poetry*, 1875; the last being issued with the collaboration of Miss Janet Tuckey and prof. E. H. Palmer. Mr. Leland has also practiced journalism to some extent, having been employed on the editorial department of the *Philadelphia Press* and *Evening Bulletin*—and for a time as editor of *Vanity Fair*, a humorous and satirical weekly paper, published in New York during the rebellion. He resided in Europe and traveled extensively during a number of years prior to 1880, when he returned to America, and settled in Philadelphia.

LELAND, JOHN, 1754-1841; b. Grafton, Mass. He was baptized by immersion in 1774, and shortly afterwards licensed as a Baptist preacher. In 1775 he removed to Virginia, where, until 1791, with the exception of occasional visits to the north, he was earnestly engaged in the discharge of his professional duties. In 1792 he settled at Cheshire, Mass., which was thenceforth his home most of the time until his death. He preached in a great number of places, and is said to have baptized a larger number of persons than any of his contemporaries. He took the warmest interest in politics throughout his life, being a pronounced democrat and an enthusiastic admirer of Jefferson, and after that statesman became president of the United States, in 1801, he went to Washington to present to him a mammoth cheese, weighing 1450 lbs., as a testimonial of the esteem and confidence of the people of Cheshire. This event was much talked of at the time, being regarded as a fresh illustration of the famous preacher's eccentric character. Many of his sermons, like those of the preachers generally of that day in New England (who, unlike him, were mostly federalists), had a strong flavor of politics. He left an autobiography, which, together with additional notices of his life, and selections from his writings by Miss L. F. Green, was published in 1845.

LELAND, or LAYLONDE, JOHN, 1500-52; b. England; having under the patronage of Thomas Myles studied ancient and modern languages at St. Paul's school with William Lilly as instructor, and at Cambridge and at Oxford, he pursued the same studies in Paris. In 1533, having filled the office of chaplain to Henry VIII., who gave him the rectory of Popeling, near Calais, and made him librarian, he was commissioned as his antiquary to explore the antiquities of the cathedrals, colleges, abbeys, and priories of his realm, receiving a stipend and a consideration for non-residence on his living. On his return in 1542 he was rewarded by Henry VIII. with the rectory of Hasely, in Oxfordshire, and a canonry of King's college, Oxford. In 1545, having lost his canonry by the surrender of that college to the king, he was awarded the prebend of East and West Knowle, in the church of Sarum. He was celebrated as a linguist and poet. In 1549 there appeared from his pen *A New Yeare's Gift to King Henry VIII. in the 37th Yeare of his Raygne*. During the preparation of his voluminous manuscripts he withdrew to his house in the parish of St. Michael le Querne, London. In 1709 his *Commentarii de Scriptoribus Britannicis* appeared in 2 vols.; in 1710-12, *Itinerary of England*, 9 vols.; in 1715, *De Rebus Britannicis Collectanea*. His manuscripts which descended from Humphrey Purefoy to Burton, the historian of Leicestershire, were deposited by him in the Bodleian library at Oxford; others that came into the possession of sir Robert Cotton, were placed in the British museum. He was associated with Nicholas Udall in preparing the English and Latin verses which were recited on the occasion of the coronation of Anne Boleyn. *Leland's Remains* were a convenient fund for Stowe, Camden, Lambarde, Dugdale, and Burton to draw upon in their antiquarian works. He was buried in the church of St. Michael le Querne. For several years previous to his death his mind was disordered, the result of protracted and solitary study.

LELAND, THOMAS, D.D., 1722-85; b. Ireland; educated at Trinity college, Dublin, where in 1763 he was elected professor of poetry. He published several works, the most prominent of which were translations of the *Orations of Demosthenes*; *History of the Life and Reign of Philip King of Macedon*; *Dissertation on the Principles of Human Eloquence*; and *A History of Ireland*; several volumes of sermons, and a controversial work against bishop Warburton.

LELÉGES, a race which in ancient times peopled the islands of the Ægean, and is supposed to have been of Pelasgic origin. Authorities differ as to its exact identity, some having confused the Leléges with the Carians, with whom they are said to have united in support of the Trojans. Homer represents Altes, king of the Leléges, as having been the father-in-law of Priam. Pausanias considers Lelex, the founder of this race, to have been a foreigner from Egypt, and that he became king of Megara. According to this authority, the grandson of Lelex, Pylus by name, founded the city of Pylus in Messenia with a colony of Megarian Leléges. The last that is recorded of the Leléges is that they joined the Carians in colonizing the w. coast of Asia Minor.

LELEUX, ADOLPHE, b. at Paris, 1812; became an accomplished engraver and lithographer, and afterwards won distinction as a genre painter: His pictures repre-

sent with vivid force scenes of life in Brittany, northern Spain and Algeria, and in the streets of Paris during the revolution of 1848. His brother, ARMAND, b. in Paris in 1818, studied under Ingres and in Italy, but turned his attention to genre painting. He has a finer appreciation of picturesque scenes than his elder brother, but less humor and power of expression.

LELEWELL, JOACHIM, 1786-1861; b. at Warsaw, Poland; studied at his native place and at Vilna; in 1809 was appointed professor of history at the lyceum of Krements in Volhynia, and at the university of Vilna in 1814. In 1824 he was dismissed upon suspicion of being engaged in secret revolutionary proceedings, and the next year was elected a member of the Polish diet. He was prominent as a leader in the Polish uprising of 1830, and when it failed, fled to France, where he lived three years, and was then banished for participation in several Polish conspiracies. He went to Brussels and devoted himself to science until his death. His scientific writings are extensive and of high value. Among his works is a *History of Poland*, greatly esteemed.

LEMAIRE, NICOLAS ÉLOR, 1767-1832; b. France; became professor of rhetoric in Paris in 1790; was a warm advocate of the revolution; was deputy judge in 1793. He delivered improvisations in Latin in Italian cities, and is best known as the compiler of the *Bibliotheca Classica Latina*, in 154 vols., Paris, 1818.

LEMAITRE, FRÉDÉRIC, 1798-1876; b. France; the son of professional actors. He studied for the stage at the conservatoire of Paris, and had the advantage of the sympathy and aid of the great Talma. His first appearance was made at the Odéon, but it was not until some time after that occasion, in 1826, that he became a member of the Odéon company. He did not remain permanently engaged in any theater, his taste and habit of mind leading him into a wandering life, and appeared sometimes at the Ambigu, sometimes at the Porte Saint-Martin, as occasion offered. It was in 1832 that he created the character of "Robert Macaire," in which he won immortal renown, being joint author of the play as well as the originator of the title rôle. He made a tour of England in 1835, achieving a marked success. His performance of the *Ruy Blas* of Victor Hugo became another of his triumphs, and this was followed by that of *Don César de Bazan*, which he produced at the Porte Saint-Martin with the result of nearly occasioning an *émeute*, for some reason, between the people and the police, troops having to be summoned and the theater closed for three days. At the outbreak in Paris of the revolution of 1848, Lemaître astounded the audience of the Porte Saint-Martin by rushing to the front of the stage, half-dressed, with a gun in his hand, and urging those in front of him to join their fellows in the street and "play a citizen-like part in the great drama, the epilogue of which must be the apotheosis of the people." In 1868, after a number of years of absolute retirement from the stage on account of the death of his eldest son, Lemaître made a reappearance at the age of 70 years. This actor achieved his greatest reputation in strong character-parts, the mobility of his features, and the skill with which he grasped and elucidated marked and original traits, rendering him exceptionally qualified for this kind of personification.

LE MANS. See MANS, *ante*.

LÉMERY, NICOLAS, 1645-1715; b. at Rouen; studied pharmacy in Montpellier, Paris, and elsewhere, and became a lecturer on chemistry, drawing great crowds by his fascinating expositions of the subject and his freedom from the popular absurdities long associated with the science. He belonged to the Reformed church, and thus became involved in troubles, from which he sought exemption in England. He was well received by Charles II., to whom he presented a copy of the 5th edition of his *Cours de Chimie*, published in 1675. It was not long, however, before the political troubles of England induced him to return to Paris, and, after the revocation of the edict of Nantes, when he had lost his right of practicing as an apothecary and physician, he united himself with the Roman Catholic church and renewed his former vocation of lecturer and writer.

LEMHI, a co. in central Idaho, having the Bitter Root range of the Rocky mountains for its n. and e. boundary, separating it from Montana territory, is watered by Lemhi river, Rock creek and North Fork, tributaries of the Salmon river, which runs n.w., entering the Snake river; about 2,000 sq.m.; pop. '70, 988-120 Chinese. In the s.e. portion is the Lemhi Indian reservation. Its surface is mountainous, with a few fertile valleys which yield the products of the dairy, furnish good pasturage, and present scenery of wonderful grandeur and beauty. Gold placer mining is the principal occupation of the inhabitants. It had in '70, 7 gold placer mines, employing 64 men, with a capital of \$42,750 and a product of \$113,000. It had also one gold quartz mine, with a capital of \$3,000 and a product of \$5,000. Seat of justice, Salmon City.

LEMOINE. See LE MOYNE.

LEMOINNE, JOHN EMILE, b. 1814, of French parents, in London. At the age of 26 he became known through the *Journal des Débats* as the English correspondent from London. His enlarged views in politics, sagacity of judgment, and refinement of style soon made him one of the eminent writers of his time. He was a determined opponent of the French intervention in the affairs of Italy, and of the reactionary despotism of Louis Napoleon. It was through his influence, in conjunction with the eminent finan-

cier M. Leon Say, that the *Journal des Débats* changed from a semi-monarchic to a frankly republican journal. At the beginning of the tentative administration of M. Thiers his pen was among the most trenchant of weapons against the various heads of the monarchic hydra that were incessantly voicing their fears of the republic. Though the bulk of M. Lemoine's work has been journalistic, he has written a large number of pamphlets on a great variety of subjects, mostly political, which have had a wide reading both in France and England. A sheaf of some of these is entitled *D'Études Biographiques et Critiques*, published in 1862. He has been one of the regular contributors to the *Revue des Deux Mondes*, and editor of the *Journal des Débats*.

LEMON, MARK, 1809-70; b. London; educated at the grammar-school, Cheam, Surrey; a versatile and fertile writer, who for many years contributed freely to the *Illustrated London News*, Dickens's *Household Words*, and other London periodicals; but who is best known from having been the editor of *Punch* in connection with Horace Mayhew for the first two years of its publication, and sole editor from 1843 to the time of his death. He was the author of more than sixty dramatic pieces, of which *The School for Tigers* and *The Serious Family* are still popular. He wrote also the following books: *The Enchanted Doll* (1849); *A Christmas Hamper* (1859); *Wait for the End* (1863); *Loved at Last* (1864); *Falkner Lyle* (1866); and other novels. He was for a long time literary editor of the *Illustrated London News*; assisted Charles Dickens in the editorial management of *Household Words*; and achieved a considerable reputation as a songwriter.

LE MONNIER, PIERRE CHARLES, 1715-99; b. France; son of Pierre Le Monnier, a French astronomer and professor of philosophy in the college d'Harcourt; having inherited a love for the study of astronomy, and having proved his aptitude by drawing a correct map of the moon, which he presented to the academy of sciences, was elected a member of that society, as adjunct geometrician, and in the following year was associated with Maupertuis and Clairaut, at Tornea, in measuring a degree of the meridian in Lapland, within the polar circle. He favored the introduction of the methods of Flamsteed, and the superior astronomical instruments of the English. In 1742, by the bounty of the king, to whom he was introduced by the duc de Noailles, he occupied apartments at the Capucins, rue St. Honoré, and held them till the revolution; he also received a royal present of 15,000 livres, in acknowledgment of his services in fixing an accurate meridian at St. Sulpice. From 1732 to 1741 he was engaged in determining the sun's greatest equation, which in the latter year he found amounted to $1^{\circ} 55' 31''$. In 1739 he was elected honorary member of the royal society of London, and for 12 years was its senior member. In 1741 he published *Histoire Céleste*. In 1746 and 1748 he made some successful telescopic observations in relation to the planets Jupiter and Saturn, and an eclipse of the sun. He held the chair of professor of physics in the college of France for many years. In 1746 he published *Institutions Astronomiques*, an elementary work. In 1748 he went to England, and thence to Aberdour, in Fifeshire, Scotland, with the earl of Morton to observe the solar eclipse. In 1771 he published *Nautical Astronomy*, and various treatises on navigation, magnetism, and the variations of the compass, etc. For 50 years his contributions appeared in successive annual publications of the memoirs of the academy. The celebrated Lalande was his pupil. From the year 1791 to his death he suffered from the effects of a paralytic attack. He was one of the 144 original members of the national institute. In 1763 he married Mlle. de Cussy of Normandy, and had three daughters, all of whom married, and the second became the celebrated Lagrange. He was buried at Héric, near Bayeux.

LE MOYNE, ANTOINE, Sieur de Châteauguay, 1683-1747; b. Montreal; son of Charles; an officer in the French army; accompanied a colony of French to Louisiana in 1704; served under his brother Iberville in campaigns against the English at the n. in 1705-6; commander of the French troops in Louisiana in 1717; commander of the fort at Pensacola in 1719; in command at Mobile soon after; governor of Martinique in 1727. He returned to France in 1744, and became governor of Isle Royal or Cape Breton.

LE MOYNE, CHARLES, 1625-83; b. Normandy; an early French colonist in Canada; distinguished himself as an Indian fighter in wars with the Iroquois, and for his services was ennobled by Louis XIV. in 1668, and made seigneur de Longueuil and Châteauguay; afterwards for many years captain of Montreal, where he died.

LE MOYNE, CHARLES, Baron de Longueuil, 1656-1729; b. Montreal; son of Charles. Distinguished for participation in the government of Canada, in promoting its colonization, in preparing its defense against the English in 1711, and obtaining the concession from the Iroquois to rebuild fort Niagara in 1726.

LE MOYNE, JACQUES, Sieur de Sainte Hélène, 1669-90; son of Charles; an officer in the French-Canadian service, until his death in 1690.

LE MOYNE, JEAN BAPTISTE. See BIENVILLE.

LE MOYNE, JOSEPH, Sieur de Sevigny, 1668-1734; b. Montreal; son of Charles. In 1694-97, he commanded a French fleet sent to act against the English on Hudson's bay in conjunction with his brother Iberville; afterwards commander of a squadron carrying colonists to form a settlement in Louisiana; surveyed the gulf coast in 1718-19; aided in the capture of Pensacola from the Spaniards in 1719, and repulsed them from

Dauphin island the same year. In 1723 was made governor of Rochefort, France, and remained in that position till his death.

LE MOYNE, PAUL, Sieur de Maricourt, 1668-1704; son of Charles; an officer in the French-Canadian service; of large influence with the Indian nations, against whom in war his services were important.

LE MOYNE, PIERRE. See IBERVILLE.

LEMPA, a river in San Salvador, a division of Central America, rising in a valley of Guatemala, and flowing e.s.e.; is an outlet for lake Guijar, and making its way through a volcanic range of mountains, forms a part of the n. boundary of San Salvador, separating it from Honduras and dividing its e. section, empties into the Pacific ocean at San Maria, 210 m. from its source. It traverses the departments of Sonsonate and Cuscatlan forming the e. boundary of San Vicente and La Paz, and the w. boundary of San Miguel. It has broad valleys, with a productive alluvial soil, and for the most part well populated. Some portions are subject to a sudden rise of from 20 to 35 ft., which floods the adjacent country. It is navigable for a considerable distance from its mouth, which is obstructed by a bar, but is connected with the estuary of Jaltepeque by a narrow strait, about 3 m. in length, navigable for part of the year by small boats. It is the largest river on the Pacific coast of Central America.

LEMURIA, a name given by certain geologists and anthropologists to a supposititious or lost continent. Such a continent, it is claimed, existed in a distant, yet not extremely remote geologic age. The position assigned it is in the Indian ocean, beneath the waters of which imagination sees it submerged; and attempts have even been made to define its bounds. The derivation of the name is from the Latin *lemur*, a specter, used by scientists to designate a genus of mammalia common in Madagascar and adjacent regions. The name was first bestowed by Schlater. The argument for the existence of such a land is mostly of an *a priori* kind, though some positive geological evidence exists. The belief is more especially accepted by some of the upholders of the monogenist theory of the propagation of the human species, as offering a plausible locality for the nativity of the first parents of mankind. Many otherwise difficult problems, both ethnological and geological, may be readily solved by taking for granted the existence of Lemuria. Thus, sir John Lubbock, in his *Prehistoric Times*, claims that the present position of the Negroid races of Africa is explicable only on the hypothesis that, since their first appearance, immense geographical changes have taken place; that there must have been a very large tract of land, or perhaps a great chain of islands, stretching from the e. coast of Africa across the Indian ocean, while that sea was then covering the great African deserts.

On the whole, while the former existence of extensive tracts of land in the region is extremely probable, it cannot as yet be accepted as proven, however convenient it might be as a universal depository of "missing links."

LEMURINÆ, a sub-family of *lemuridae* (q.v.), including the genera *lemur*, *hapalemur*, and *lepilemur*. They have woolly fur, long tails, and fox-like muzzles. There are many species, having a great variety of color and arrangement of fur, as the ruffed lemur and the white-ruffed lemur. They are very common animals in menageries, and do not pine in confinement. They are exclusively natives of Madagascar. The *lepilemur* is the only genus having a tail shorter than the body. When reposing, the members of this family roll themselves up into a ball, winding the tail around the body. They are great leapers.

LEN'APES. See DELAWARE INDIANS.

LENAU, NIKOLAUS, 1802-50; b. Hungary; his family name was NIEMBSCH VON STREHLENAU; he was educated at the university of Vienna, and afterwards studied law and medicine. He visited the United States in 1832, and about the same time published in German a collection of lyric poetry which met with general public favor. In 1844, when about to be married, he became insane, and was placed in an asylum, where he remained until the period of his death. He wrote the drama of *Phaust* (1835); two epic poems—*Savonarola* (1837) and *Die Albigenenser* (1842); and a drama, *Don Juan* (1851), which was his favorite. His complete works were published in Stuttgart in 1855 and 1870.

LEN'AWEE, a co. in s. Michigan, having the state line of Ohio for its s. boundary; is drained by the head waters of the Raisin and Macon rivers, Bear creek, emptying into the Raisin, and Bean creek or Tiffin river, flowing over the border into Ohio; 720 sq.m.; pop. '80, 48,343. Its surface is rolling, and well timbered. Its soil is a dark, rich, sandy loam, productive of tobacco and dairy products. It produced in '70, 1,467,408 lbs. of butter and 11,983 lbs. of honey; other products are sorghum, maple-sugar, flax, hops, fruit, and every variety of grain. Value of all live stock in '70, \$2,897,101. Cash value of farms in '70, \$21,158,168, numbering 4,312. It had in '70, 585 manufacturing establishments, with a capital of \$2,226,831, and a product of \$4,265,925, including manufactories of agricultural implements, brick, cars, iron castings, machinery, cheese, cooperage, carriages; also, breweries, tanneries, currying establishments, and planing, flour and saw mills. It is intersected by the Chicago and Canada Southern railroad, the Lake Shore and Michigan Southern, and the Jackson and Monroe branches of the Lake Shore and Michigan Southern. Seat of justice, Adrian.

LEN'CAS, a tribe of Honduras Indians, numbering about 40,000, and occupying a range of table-lands near Comayagua, the capital of Honduras. They are a courageous, but perfectly peaceful tribe, hard-working and economical, and, like all mountaineers, passionately attached to their country. Their language appears to consist of dialects of a tongue which must once have been widespread through Central America and Mexico, and which is termed *U'ontal*, meaning simply exotic or barbarous.

L'ENCLOS, NINON DE. See NINON DE LENCLOS, *ante*.

L'ENFANT, PIERRE CHARLES, 1755-1825; b. France; came to America with Lafayette in 1777, and served in the revolutionary war as an officer of engineers. He was promoted to a captaincy in 1778, and wounded at the siege of Savannah; was afterwards made maj., and acted as engineer at fort Mifflin in 1794. He drew the plans for the city of Washington and for some of the public buildings there. In 1812 he declined an appointment as professor of engineering at West Point. Died in Maryland.

LENNOX, a co. in e. Ontario, Canada, having for its s.e. boundary the bay of Quinte, an estuary on the n. of Prince Edward's co., s.w. of the point where the St. Lawrence leaves the e. portion of lake Ontario; 315 sq.m.; pop. '71, 16,396. Its surface is drained by the Napanee and other small rivers, and is diversified by low hills, fertile valleys, plains, and well-timbered land. Its water-power is utilized by paper-mills and other factories, and its county seat is a port of entry. Its soil, founded on a sub-stratum of limestone, is very fertile, and every variety of grain is raised. It is intersected centrally by the Grand Trunk railway, crossing the river Napanee. The co. of Addington on the e. and Amherst island directly s. of, and belonging to, that co., are included in the same riding. Seat of justice, Napanee.

LENNOX, CHARLOTTE, 1720-1804; daughter of lieut.gov. Ramsay of New York. At the age of fifteen she went to London and devoted herself thenceforward to literary pursuits. She wrote novels, verses, pastorals, and several translations from the French. *The Female Quixote*, an imitation of *Don Quixote*, satirizing the French romances of the 17th c., had for a time a considerable vogue. It appeared in two volumes in 1752. Miss Lennox was on terms of intimacy with Richardson the novelist, and with Dr. Johnson; the latter wrote the dedication for her *Shakespeare Illustrated*.

LENNOX, WILLIAM PITT, Lord, b. 1799; fourth son of the fourth duke of Richmond, and godson of William Pitt. He was educated at Westminster, and having entered the army served for several years upon the staff of the duke of Wellington. He has been a voluminous contributor to magazines and newspapers. Among his works are: *Compton Audley*; *The Tuft-Hunter*; *Percy Hamilton*; *Philip Courtney*; *Merrie England*; *Recreations of a Sportsman*; *Fifty Years' Biographical Reminiscences*; *Adventures of a Man of Family*; and *Drafts on my Memory*.

LENNOX. See DUMBARTONSHIRE, *ante*.

LENNOX, Earls and Dukes of. See STEWART, THE FAMILY OF, *ante*.

LENOIR, a co. in s.e. North Carolina, drained by the navigable Neuse river empty, ing into Pamlico sound, and by the Trent rising in it and emptying into the estuary of the Neuse at Newbern; about 430 sq.m.; pop. '80, 15,344-15,328 of American birth-8,067 colored. It has a level surface partially covered with pine and other evergreen trees. It has a sandy but fertile soil, producing rice, flax, sweet potatoes, tobacco, cotton, fruit, sorghum, and every variety of grain; cattle, sheep, and swine are raised. It produced in '70, 11,712 lbs. of honey. Cash value of farms in '70, \$731,917, numbering 641. It is intersected by the Atlantic and North Carolina railroad, Morehead City to Goldsboro'. Its manufactories include turpentine distilleries, flour and saw mills; and its county seat is a shipping place for thousands of bales of cotton annually. Seat of justice, Kinston.

LENOIR, WILLIAM, 1751-1839, b. Brunswick co., Va., but removed in childhood to North Carolina, where he took an active part in the campaigns against the British and the Tories. For 60 years he held the office of justice of the peace, served frequently in both branches of the legislature, for five years was president of the senate, then president of the council, and in the later years of his life maj.gen. of the state militia.

LENORMAND, MARIE ANNE ADELAIDE, 1772-1843; b. Alençon, of respectable but poor family, and for some time was a seamstress; in 1790 went to Paris, where she was a saleswoman in a linen shop; in 1793 entered into partnership with Mme. Gilbert and a baker's boy for carrying on fortune-telling. On complaint to the police she was arrested and imprisoned for several months. But this increased her popularity, and after her release she opened a "cabinet of divining," and for 40 years she was visited by people of all ranks, even by the court of Napoleon. The allied sovereigns who were assembled at Aix-la-Chapelle, especially the emperor Alexander, paid her great attention. In 1809 she was arrested on account of "indiscreet revelations," and again in 1821 for sentiments contained in a book called *La Sibylle au Congrès d'Aix la Chapelle*. She became rich, but died in obscurity. None of her publications were of importance except *Souvenirs de la Belgique*; *Cent Jours d'Informe*; and *Mémoires historique et secrets de l'impératrice Joséphine*.

LENORMANT, CHARLES, 1802-1859, b. Paris; studied law, but visiting Italy became specially interested in antiquities; was made inspector of fine arts in 1825; accompanied the younger Champollion to Egypt in 1828. Returning to Paris he held important positions in connection with art and archæology; was professor in the Sorbonne in 1835, but resigned on account of his ultramontane views. He was afterwards made professor of Egyptology in the college de France. He published *Des Artistes contemporains*, 2 vols.; *Élite des Monuments céramo-graphiques*, 4 vols.; *Trésor de Numismatique et de Glyptique*, 5 vols.; *Introduction à l'Histoire orientale*; *Musée des Antiquités Égyptiennes*; *Questions historiques*. He was a member of the commission for exploring the Morea, and was for some time editor of the *Correspondant* magazine.

LENORMANT, FRANÇOIS, son of Charles; b. Paris, 1835; educated by his father; made at an early age archæological and numismatic researches under the direction of his father; took in 1857 the numismatic prize awarded by the academy of inscriptions; made archæological tours in Germany, Italy, Egypt, Greece, and Turkey. The massacres of the Christians in Syria in 1860 occurring when he was there on an official mission, he sent an account of them in letters to the Paris newspapers, which were subsequently reprinted under the title of *Une Persécution du Christianisme en 1860; les derniers Événements de Syria*. He made during that year important excavations at Eleusis; was sent in 1866 as a member of a scientific commission to observe the volcanic phenomena of the island of Santorin; was appointed professor of archæology in the *Bibliothèque Nationale*. He was a volunteer in the 9th regiment of the national guard of Paris during its siege, and was wounded at Buzenval. He attended the congress of orientalists in Florence in 1878; was editor of the *Moniteur des Architectes* 1869-72; and with M. de Witte founded the *Gazette Archéologique*. His contributions to antiquarian periodicals, French and foreign, are very numerous. Some of his most important works are *Manuel d'Histoire Ancienne de l'Orient*; *Histoire des Peuples Orientaux et de l'Inde*; *Lettres Assyriologiques et épigraphiques*, 2 vols.; *Études Accadiennes*; *Les premières civilisations*.

LENOX, a t. in w. Massachusetts, incorporated in 1767, and named in honor of the duke of Richmond, is surrounded by beautiful scenery, has been the home of many prominent families of Massachusetts and New York, and the summer residence of their eminent citizens; pop. '80, 2,043. It is situated on a low range of the Berkshire hills, in the valley of the Housatonic river, 8 m. s. of Pittsfield, 33 m. s.e. of Albany, N.Y., 110 m. w. of Boston, and 125 m. from New York city. It has a station on the Housatonic railroad between Stockbridge and Pittsfield. It has 4 churches, an academy, excellent public schools, and a public library. It has manufactories of window and plate glass, lime, lumber, brick, flour, and iron-works. Its mineral products include iron ore and limestone, also marble of a superior quality, some of which has been used in the erection of government buildings in Washington.

LENOX, JAMES, 1800-80; b. New York; of good family, and in affluent circumstances, he received a liberal education, and thorough training for a moral and healthy life. His experiences were enlarged and his views broadened by extended foreign travel; and when he at last entered upon the long period of comparative retirement from public notice—which was his choice—it was with that propensity to "do good by stealth and blush to find it fame," which ever thereafter characterized him. Among those who best knew him, he justly gained a reputation for unostentatious charity, wisely administered, as to which the general public was but little informed. And the endowment of the Presbyterian hospital in Fifth avenue, New York, and that of the Lenox library, magnificent gifts as they were, were not isolated instances as such, but only formed the crowning incidents of the administration of a thoroughly and persistently beneficent career. Mr. Lenox was a devoted bibliophile through life, and his bibliographical knowledge was, in certain directions, quite unequaled in his own country, and probably unsurpassed elsewhere. He formed a private library, which for its money value, as well as the rarity of many of its articles, was unrivaled, and of which the learned Dr. Cogswell, superintendent of the Astor library, remarked, that while it would have filled the space of only one of the 34 alcoves of that institution, in cost it exceeded that entire collection, at the time when the statement was made, which was in 1860. This library was fullest in bibles, early voyages and travels, early-printed American books, and *incunabula*. In the department of accounts of early voyages to America it was utterly without a rival. It contained the most perfect and finest copy of De Bry's Voyages known; the rare *Bay Psalm Book*; Eliot's Indian Bible; and the world-renowned Mazarin Bible, printed by Guttenberg, Faust, and Schæffer, at Mayence, in 1455; the only perfect copy in America, and which cost Mr. Lenox, at auction, \$2,600. This superb collection was made the nucleus of the Lenox library, and, with the gallery of paintings bequeathed by their owner and collector for the same purpose, now exists in that institution, a gift to the city of New York. See LIBRARIES.

LENT (*ante*). In the Acts of the Apostles it is recorded that, on some special occasions, fasting in connection with prayer was practiced both by apostles and churches. Once in the epistles it is recognized as at times helpful to the offering of special prayer. Beyond this, in the midst of many earnest practical exhortations to a holy life, no mention is made of fasting, nor is there any intimation that reliance was placed on it either as meritorious in itself or as a help to holiness. In the age immediately following that

of the apostles, the practice, so far as it prevailed, seems to have been a continuance of Jewish or pagan observance rather than a Christian requirement. Very little reference appears to have been made to it by writers of the first century. In the 2d c., as Victor and Irenæus say, it was the custom of several congregations to prepare themselves for Easter by mortification and fasting, commencing on the day in which they commemorated the crucifixion and continuing until the anniversary of the resurrection. This included a period of about 40 hours. By the time of the council of Nice (325 A.D.) it had been extended to 40 days, with the exception of the included Sundays, which were never observed as fasts. Gregory the great, in 590, directed that the season should begin on the 6th Sunday before Easter, and that on all the intervening week days fasting should be practiced. Afterwards, either by him or Gregory II., four days of the preceding week, beginning with Ash-Wednesday, were added to make the whole fast 40 days. The council of Laodicea (held some time in the 4th c., but whether near the beginning, middle, or end is not now known) allowed only "dry food," that is, bread and water; and forbade the celebration of the festivals of martyrs, marriages, and birthdays during the whole of lent. Chrysostom, whose life extended from 347 to 407, says that "as many persons used to come to the communion thoughtlessly, especially at the time of the year when Christ first gave it to his disciples, our forefathers appointed 40 days for fasting, prayer, preaching, and holy assemblies; that all men being carefully purified by prayer, alms-deeds, fasting, watching, tears, and confession, might come with a pure conscience to the holy table." After a time fasting ceased to be a voluntary exercise. Laws enforcing it were passed in the 6th c. by the council of Orleans; in the 7th c. by the 8th council of Toledo; in the 8th c. the breach of its observance was punished with excommunication; in the 11th c. some persons who transgressed had their teeth drawn out. In later times such severities were greatly diminished. In England the observance was first made obligatory in the 7th c. by Ercombert, seventh king of Kent. Since the reformation lent has been retained in the calendar of the church of England, and has now a place in that of the Protestant Episcopal church in the United States, as a season for special religious services and instructions, in which the continuance and strictness of the fast is left to the judgment and choice of individual Christians. The six Sundays included in it are observed as festivals, never as fasts, and are therefore called Sundays *in* lent, not *of* lent. The last or passion week is naturally considered the most solemn portion of it, and is called "the great week." In nearly all Protestant churches on the continent of Europe—especially in the Lutheran—the lenten season is observed. The observance is regarded with more favor than formerly among non-episcopal denominations in the United States.

LEN'TULUS, name of an ancient patrician family distinguished in Roman history, of which the most conspicuous was Publius Cornelius Lentulus Sura. He was quæstor and prætor, and in 71 B.C. became consul, but was expelled from the senate on account of his immoral life. He joined the conspiracy of Catiline, and became the leader of the conspirators after Catiline had left for Etruria in 63. Arrested by order of Cicero, then in the consulship, he was tried before a full senate, condemned to death, and strangled in the Capitoline prison, B.C. 63.

LENTULUS, EPISTLE OF, the title of a letter professing to describe the personal appearance of Christ as witnessed by the writer, who styles himself Publius Lentulus, president of the inhabitants of Jerusalem. Manuscript copies of it, differing considerably in their texts, are found in several libraries of England, France, Italy, and Germany. In substance it is as follows: "There has appeared in our time a man of great virtue named Christ Jesus, who is said by the people to be a prophet of truth, whom his disciples call the Son of God; he raises the dead and heals the sick. He is a man of lofty stature, graceful mien, and venerable countenance, inspiring in those who look on him both love and fear. His hair falls around him, blown by the wind, and is somewhat curly, cærulean, and shining; it is parted in the middle, after the manner of the Nazarenes, his forehead is smooth and very calm, his face without wrinkle or blemish, and adorned with a moderate degree of color. His nose and mouth are entirely without fault; his beard, in color like his hair, is abundant and youthful, not long but forked; his eyes are bright and changeable in expression. In reproof he is terrible, in admonition, gentle; he is kind, blends cheerfulness with gravity, is never seen to laugh, but often to weep. Thus, tall in stature, having graceful hands and limbs, and grave in speech, he is in an uncommon degree self-controlled and worthy of admiration among the sons of men." In former centuries this letter was highly valued, and among Roman Catholics many still receive it as genuine. The general opinion of Protestant critics may be given in the words of Dr. Edward Robinson, who thus sums up his investigation of the subject: "In favor of its authenticity we have only the purport of the inscription. There is no external evidence whatever. Against its authenticity we have the great discrepancies and contradictions of the inscription; the fact that no such official person as Lentulus existed at the time and place specified, nor for many years before and after; the utter silence of history in respect to the existence of such a letter; the foreign and later idioms of its style; the contradiction between the contents of the

epistle and established historical facts; and the probability of its having been produced at some time not earlier than the 11th century."

LENZ, JAKOB MICHAEL REINHOLD, 1750-92; b. Sessweyen, Livonia; studied at Königsberg; went to Strasburg in 1771 as tutor to some Russian nobles, where he met and became enamored with Goethe's Friedericke Brion of Sesenheim, who rejected his offer of marriage. In 1776 he associated with Goethe, Herder, and other literary men at Weimar, but subsequently became dissipated, then insane, and ended his days in misery.

LEO I., FLAVIUS, emperor of the east, surnamed the great; d. 474; b. Thrace; having, by the influence of Aspar, who commanded the auxiliaries, ascended the throne at the close of the peaceful reign of Marcianus, A.D. 457, he was confirmed by the senate, and acknowledged emperor and chief of the military forces, receiving the crown from the hands of the bishop Anatolius, patriarch of Constantinople, who gave the proceedings the sacred sanction of a ceremony, which introduced at that time, has ever since been performed on the occasion of the elevation of a monarch to the throne. His birth was lowly, but urged by a lofty ambition, with persistent endeavor, aided by the interested exertion of the power of the Gothic chief, Aspar, he rose to high military rank, and at the time of the death of his predecessor was in command of a body of troops near Selymbria. Upon assuming the control of affairs he adopted the policy of Marcianus toward the Eutychians, who having recently put to death their bishop and placed another, Ælurus, in his place, were disturbing the peace of Alexandria, and inciting the populace against him. He exiled Ælurus, and appointing an orthodox bishop in his place, angered Aspar, who being an Arian, had approved and concealed the movements of the Eutychians. On this issue he quarreled with Aspar. Having defeated the Huns in a battle in the province of Dacia, in which a son of Attila was killed, with Anthemius, emperor of the west, as an ally, he prepared a large fleet with which to convey a division of the army to make war against the Vandals, under Genseric, then in possession of Africa. He succeeded in taking the island of Sardinia and Tripolis, and other towns of Libya, but on attempting to leave the harbor of Carthage by night, he was attacked by fire ships, which setting fire to his fleet, caused the expedition to result in failure. He suspected Aspar and his father of intrigue with his commander Basiliscus that brought about these reverses. Their motives have been questioned by historians, ascribing to them a desire to rule the kingdom through him, Aspar's Arianism being an insuperable barrier to his assuming personal direction of the empire. Notwithstanding that he owed his advancement and his accession of the throne to them, he resolved to put Aspar to death, and having in A.D. 471 arranged the preliminaries of a marriage between his daughter and Patricola, Aspar's son, purposely exciting the indignation of the people whom he knew to be inimical to the family of Aspar, they rose in revolt against the union, and pursued Aspar and his son to the church of St. Euphemia where they had taken refuge. He persuaded them to come to the royal palace for protection, and violating his royal oath beheaded them on their arrival. His capital was menaced for two years by the Goths, who, incited by Ricimer, constituted themselves the avengers of Aspar in the interest of the Arians; at the end of which time peace was declared. He died in 474, leaving a reputation for thoughtful vigilance and moderation in the conduct of his empire, for a desire to promote the well-being of his subjects, for wisdom in legislation, and economy in administration, bearing the odium of no failing but that of a culpable neglect of justice in allowing Aspar absolute freedom for so long, and of betraying him with perjury at last.

LEO (*ante*), II., SAINT, b. in Sicily, and became pope in 682, but died in the following year. He succeeded in healing the schism between the sees of Rome and Ravenna, through an arrangement by which the bishops of Ravenna were to be ordained at Rome, and to be exempted from the payment of the money fee previously exacted from them. He was the friend and patron of church music, and aided in the improvement of the Gregorian chant. He built a church to St. Paul, and is said to have been the originator of the custom of sprinkling with holy water.

IV., d. 855, a native of Rome, succeeded Sergius II. in 847. He built a new Roman suburb, occupying 4 years in the labor, and it was named in his honor *Civitas Leonina*. He also restored Porta, a town near the mouth of the Tiber, where he colonized several thousand Corsicans who had been driven from their own country by an inroad of Saracens. He also founded a new town which was called Leopolis, since destroyed. The fabulous pope Joan has been interpolated by certain writers between this pope and Benedict III., who succeeded him.

V. assumed the papal authority Oct. 28, 903, but was imprisoned and forced to abdicate by Christopher, cardinal-priest of St. Lorenzo, and his own chaplain. He is said to have died of grief in prison a little more than a month after his election.

VI., born in Rome, succeeded John X., 928, and died after occupying the papal chair during 7 months. It has been alleged that he was put to death by the celebrated and infamous Marozia.

VII., also a Roman, became pope in 936, and reigned until his death in 939. His character is said to have been excellent, but little or nothing is recorded concerning his life.

VIII., succeeded John XII., who had been deposed, but who afterwards put Leo to flight and resumed the papacy. John was put to death, for cause; Benedict V. was elected by the Romans to fill the vacancy; and he, in turn, was removed by the emperor, Otto I., who reinstated Leo. The latter died about 965, and was succeeded by John XIII.

IX., BRUNO, was b. in Alsace in 1002, d. 1054. He was bishop of Toul, and was elected to the papacy in 1049. He was a man of great erudition, and did much to reform the discipline and morals of the clergy. Having led a grand military movement against the Normans, he was taken prisoner and detained by them in confinement for more than a year, the greatest respect being observed in his treatment. A number of important councils were held during his reign.

XI., ALESSANDRO DE MEDICI, 1535-1605, b. Florence; was bishop of Pistoia in 1573, archbishop of Florence in 1574, and cardinal in 1583, in which capacity he was delegated to receive Henry IV. into the bosom of the Roman Catholic church. He was elected pope in 1605, and lived only 26 days thereafter.

XII., ANNIBALE DELLA GENGA, 1760-1829; b. Spoleto; archbishop of Tyre in 1793, and cardinal in 1816; was elected pope in 1823, on the death of Pius VII. He vigorously antagonized the Carbonari and other secret societies, and opposed Bible societies in a circular letter. He reorganized the university of the Sapienza in Rome, and reformed the administration of the papal state. He was succeeded by Pius VIII.

LEO V., FLAVIUS, emperor of the east, surnamed the Armenian; d. 820; b. Armenia; rose to the rank of gen., but under the accusation of treason made by the emperor Nicephorus, he was imprisoned in a convent, until Michael Rhangabe coming into power in 811, released him and restored him to his command. In 813, having executed a successful campaign against the Saracens, he set out on an expedition against the Bulgarians, Michael being in chief command, but in the engagement allowed his own army to suffer defeat at Adrianople. Perceiving a way to reach the throne himself by profiting by the falling fortunes of his superior, he instigated a rebellion, in the remnant of the army, against his former benefactor, and marching at their head was elected emperor in his place. Receiving the imperial scepter sent by the unresisting hand of the deposed monarch, who retired into a convent, he was crowned at St. Sophia by the patriarch Nicephorus. He was an iconoclastic prince of the most pronounced type, and caused, so far as he was able, the adoration of images to be abolished by the second synod of Constantinople in 815, and condemned to punishment those who persisted in it, with Theodorus Studita at their head; exiling the patriarch Nicephorus for the same cause. The weight of public sentiment was against him; his frequent changes in religious belief gaining for him the nickname of chameleon. In 814 he defeated the Bulgarians at Messembria. He arrested Michael, surnamed the stammerer, whom he suspected of treason, notwithstanding his former valuable services, and condemned him to death; but on Christmas morning in 820, while he knelt in the chapel of his palace, he was murdered by the adherents of Michael disguised as priests. Nicephorus, then in exile, exclaimed, "The church is freed from an enemy, but the state has lost an able prince." His reign is chiefly remarkable for the strict military discipline which was by him infused into the administration of the civil government.

LEO VI., FLAVIUS, Emperor of the Byzantine empire, b. 865; son of Basil I., whom he succeeded. His reign was marked by a succession of blunders and stupidities. His *Oracula* is a poem in iambic verse, in which he prophesied the fate of the empire. Several editions of it are extant. His *Orationes*, thirty-three in number, are mostly upon theological subjects. Of these there is no collected edition, but some of them have been preserved in Baronius's *Annales*, and others in *Bibliotheca Patrum*, etc. His most important work, however, is a treatise on military affairs, made up chiefly of extracts from other authors. Many editions of this are in existence, and among them an English translation by John Cheke (1554), and one in French by Joly de Mezeray (1774).

LEO XIII. (*ante*). The conclave of cardinals convened Feb. 18, 1878; and on the 20th, cardinal Pecci, archbishop of Perugia, received 45 votes, and was declared pope, assuming the above name. He at once made known the fact of his election to the great powers, and the first act of his pontificate was to restore the Roman Catholic hierarchy to Scotland, which was done on Mar. 4, 1878, by letter apostolic. The episcopal sees of St. Andrews and Glasgow were restored, and those of Aberdeen, Argyll, Dunkeld, the Isles, and Whithorn or Galloway, were created. Pope Leo appointed cardinal Franchi secretary of state and master of the sacred palaces; cardinal Simeoni secretary of the Propaganda; cardinal Sacconi prodatary; and cardinal Morochini chamberlain. He issued his first encyclical letter in April, in which he specifically set forth a long catalogue of the evils afflicting human society—crimes, errors, and misdemeanors; attributing all of these to the departure of those concerned in them from the Roman Catholic church. Describing the present age as being "in bitter antagonism to religion and the church of Christ," he proceeded to attribute to the papal authority all that had ever been of good, precedent to this miserable condition, asserting that it was the glory of the popes "that they ever stood as a wall and a bulwark to prevent human society from sinking back again into its former barbarism and superstition." The encyclical continued by claiming temporal authority as the prerogative of the papacy, and urging the

faithful to persevere and persist in asserting and sustaining the claim. He demanded that education should be made "conformable in science and discipline to the Catholic faith;" attacked the custom of civil marriages; recommended the encouragement of "those associations which have principally been established of late years to the great advantage of Catholic interests;" and closed with a testimonial to the united condition of the church as against its enemies. The new pope continued to hold the antagonistic attitude sustained by his predecessor against king Humbert of Italy, and declared the governmental prohibition of religious instruction in the Italian schools to be a "very reprehensible measure." On the death of cardinal Franchi, he appointed cardinal Nina to the position which had been held by the former. On July 20, 1878, under the direction of the pope, the congregation of the propaganda issued "Instructions," directing the introduction of the canon law into the Roman Catholic church in the United States that country having hitherto been regarded as a missionary field. In 1879 the pope issued an encyclical letter aimed at the doctrines of the Socialists, Communists, and Nihilists; which was, by order of the czar, read in all the Roman Catholic churches in Russia. By his reception on Feb. 22 of a large number of Catholic journalists, the pope recognized the power of the press. During this year, the twenty-fifth anniversary of the definition of the Immaculate Conception was celebrated with pomp, the pope issuing an encyclical on the occasion. In all things the pope has thus far patterned his conduct and his opinions after those of Pius IX., and had sustained at their highest altitude the claims of the church concerning its authority and prerogative. Since this time, however, as is claimed by acute observers, there are signs of a far more comprehensive grasp and larger liberality than were intellectually possible to his sincere and estimable predecessor. The present pontifical administration seems aiming successfully at the unification of the opposing principles and tendencies which undeniably exist in the great church; and while upholding in full vigor the official demands of the Roman see, to seek application of the ancient principles in a spirit not unfriendly to the governing forces of modern Christendom. It is probable that the time has not yet come for a just estimate of this pontificate; while there has appeared sufficient reason for ascribing to the pope high intellectual and administrative ability, and personal moral excellence.

LEO, HEINRICH, b. at Rudolstadt, Germany, 1799. He resolved at first upon the study of medicine, but, under the influence of Turnvater Jahn, turned his attention to history, and took an active part with the students at Jena and Göttingen in the agitations of the period. Breaking away from these surroundings, he went to Italy under the patronage of the princess of Rudolstadt, and on his return avowed himself an enthusiastic admirer of Hegel. In 1828 he became professor in history at the university in Halle, and during the next few years wrote several works, in which he followed more or less closely the philosophy of his great master. Subsequently, however, he changed his position, adopting Hengstenberg as his leader, and attacking energetically the ideas of Hegel. Under the influence of this reactionary tendency he wrote several works.

LEO, LEONARDO, 1694-1756; b. Naples; studied music in Rome under the celebrated composer, G. O. Pitoni. Returning to Naples, he was made chapel-master of the church of Santa Maria Solitaria, and afterwards master of the conservatory La Pietà and the conservatory of Sant' Onofrio. Besides his labors as a teacher, he composed voluminously for the church and for the stage, his music being highly commended by so excellent an authority as Dr. Burney. A difference of opinion exists among the authorities as to the date of his death, the date here given having been found inscribed on a portrait of the composer, preserved in the royal college of music in Naples, while other sources give it as 1742, 1745, and 1755.

LEO OF THESSALONICA, surnamed the philosopher. He was a learned ecclesiastic of the 9th c., but the date and place of his birth are unknown; studied grammar and poetry at Constantinople, and arithmetic, rhetoric, and philosophy under Michael Psellus in the island of Andros, and at the monasteries in continental Greece. He was a teacher at Constantinople, was appointed by the emperor Theophilus public teacher or professor, and soon afterwards the patriarch Joannes, a kinsman of Leo, by order of the emperor, consecrated him bishop of Thessalonica. On the death of the emperor he was deposed from his see, but was subsequently placed at the head of a mathematical school established by Cæsar Bardas at the palace of Maynaura in Constantinople. Leo was still living in 869. Some astrological MSS. ascribed to him are found in European libraries.

LEO AFRICANUS, or AL HASSAN IBN MOHAMMED, about 1485-1562; b. in Grenada, Spain. He was of Moorish descent, and his parents emigrated to Morocco after the capture of Grenada by the Spaniards. At 16 years of age he went with an uncle on an embassy to Timbuctoo, and afterwards traveled in northern and central Africa, penetrating to Nubia, descending the Nile, and extending his explorations into Persia. While returning from Constantinople by sea in 1517 he was captured by pirates and taken to Rome, where he was converted to Christianity and patronized by pope Leo X., whose name he adopted. He learned the Latin and Italian languages and taught Arabic. Died at Tunis. His *Description of Africa*, written in Arabic, was published in Italian by Ramusio in 1550, and, more than 80 years later, in Latin by Elzevir.

LEO'BEN, a t. of Austria in Styria, 9 m. s.w. of Brück, on the Mur, 1650 ft. above the sea-level, and at the junction of the Vienna and Trieste railway; pop. 4,529. It is well built, surrounded by a wall with three gates, has extensive barracks and several elegant public buildings. The inhabitants are employed mostly in mining and forging iron; and some trade is carried on in coal, iron, and salt. Here was concluded, April 18, 1797, a preliminary treaty between Austria and the French republic, followed by the peace of Campo Formio.

LEOCH'ARES, an Athenian sculptor mentioned by Pliny as living B.C. 372. In B.C. 352, he was one of those employed to erect the famous tomb in honor of Mausolus, king of Caria. He also was engaged with other artists by Philip in commemorating his victory at Chæronæa B.C. 338, and produced his portrait-statues of Philip, Alexander, Amyntas, Olympias, and Eurydice. His masterpiece was the "Rape of Ganymede by the Bird of Jove," a bronze statue much admired in its time, of which a marble copy is now in the *Museo Pio-Clementino* at Rome. His statue of "Jupiter Tonans" is characterized by Pliny as "*ante cuncta laudabilem*."

LEOMINSTER, a t. in central Massachusetts, much visited in the summer season on account of its delightful surroundings, and its convenient distance from Wachusett mountain; pop. '80, 5,776. It is situated on the e. and w. banks of the Nashua river, and each village has a railway station, Leominster Center on the Boston, Clinton, Fitchburg and New Bedford railroad, and North Leominster on the Fitchburg railroad. It is 54 m. n.w. of Boston and 5 m. s.e. of Fitchburg. It is well built, and has excellent public schools, a national bank, a savings bank, 6 churches, 1 newspaper, gas-works, water-works, a public library, and 2 hotels. Its leading industries are the manufacture of combs, pianos, paper, children's carriages, furniture, toys, linen and woolen goods.

LEON, a co. in n. Florida, having for its n. boundary the state line of Georgia, and for its w. the Ocklockonnee river, emptying into Appalachee bay and thence into the gulf of Mexico; also, has lakes of considerable size in the northern section; 800 sq.m.; pop. '80, 19,660—19,573 of American birth, 16,843 colored. Its surface is uneven, rising into hills in the n. section, and in the s. spreading out into broad plains. It is well timbered, and the soil is adapted to the raising of tobacco, cotton, rice, wool, oats, corn, sweet potatoes, sugar cane, and live stock. Cash value of farms in '70, \$1,225,418. It had in '70, 30 manufacturing establishments, employing 187 hands, with a capital of \$318,300, and product of \$256,310. It is intersected by branches of the Jacksonville, Pensacola and Mobile railroad, forming a junction at Tallahassee. Seat of justice, Tallahassee, the capital of the state.

LEON, a co. in e. Texas, having the Trinity river for its e. boundary, emptying into Galveston bay, is drained by that river and the head-waters of the Navasota river, which forms its w. boundary; 800 sq.m.; pop. '80, 12,818—12,729 of American birth, 5,110 colored. Its surface is hilly and heavily timbered. Its soil, a rich black loam, is very fertile along the water-courses and adapted to the raising of live stock, tobacco, cotton, sweet potatoes, and sorghum. In '70, it produced 12,291 lbs. of honey. It is traversed by the International and Great Northern railroad, crossing it diagonally. Seat of justice, Centreville.

LE'ON, a city of Mexico in the state of Guanajuato, capital of a district of the same name, on the Rio Torbio, 100 m. n.w. of Mexico; pop. 78,930. It is well built, and is about 6,000 ft. above the sea. In a large and beautiful square are several fine public buildings, among which are the governor's palace, the parish church, and a picturesque arcade. The city has several churches, three convents, a hospital, and schools. It is one of the most flourishing cities of Mexico, has an extensive commerce in wheat and other grains, and manufactures leather, saddlery, cottons, and woolens. It was founded in 1576, but became commercially important only about 1855. It is now the chief entrepot of the Bagio or the plain of Guanajuato, celebrated for its thriving agriculture.

LEON, PONCE DE. See PONCE DE LEON, *ante*.

LEONARD, DANIEL, 1740-1829; b. at Norton, Mass.; graduated at Harvard in 1760; studied law, and attained to eminence in the profession; was often elected to the legislature. In the discussions preceding the revolution he was a staunch whig, but when the war broke out he espoused the royal cause, sacrificing in consequence a considerable estate. His defense of the English government, written in reply to the arguments of John Adams against the colonial measures of lord North, displayed great ability. Mr. Adams reprinted the controversy in 1819, with a preface by himself. Leonard retired from Boston with the British forces in 1776, resided some time in London, and was afterwards for many years chief-justice of Bermuda. Died in London.

LEONARD, JAMES, about 1618-91; b. England; settled in Taunton, Mass., in 1652, and established there the first iron-works in the American colonies. Died in Taunton.

LEONARDO DA PISA, LEONARDO BONACCI, or BONACCIO; b. Italy; lived at the beginning of the 13th century. He was placed by his father with a master, who taught him the Arabic system of arithmetic, and to this science he devoted most of his life. He traveled in Syria, Egypt, and Greece to learn the different systems of arithmetic, decided that the Arabic was superior to all others, and did much to extend the

knowledge of it in Europe. He is said to have introduced algebra into Europe. He wrote a work on algebra which was never printed, but is preserved at Rome, and is described in Cossali's *History of Algebra*. He was the author of a treatise entitled *Practica Geographia*, now in the Magliabecchi library at Florence, but his principal work was *Liber Abaci*, using the word abacus, which is an instrument employed to facilitate computation, to denote arithmetic in general. This was written in 1202, and published at Rome in 1857 by B. Boncompagni. He gained great celebrity.

LE'ONHARDT, GERHARD ADOLPH WILHELM, b. at Neuhaus, Hanover, 1815; educated in jurisprudence at Göttingen and Berlin, entered the service of the Hanoverian government in 1837, and became minister of justice in 1865. For 15 years he was president of the committee of examination in jurisprudence. After the annexation of Hanover to the German empire he was first made president of the court of appeal at Celle, and afterwards chief-justice of the new provinces. Then the king gave him a seat in the Prussian house of lords, and shortly afterwards he received the appointment of Prussian minister of justice. He has done much to improve the criminal code of Germany.

LEONINE CITY. See ROME, *ante*.

LEON, ISLA DE, a long narrow island on the s.w. coast of Spain, province of Cadiz, in the Atlantic, separated from the main-land by a narrow deep channel, called Santi Petri; is 10 m. long and 2 broad. The broadest part is next the main-land. On it are the cities of Cadiz, Isla de Leon, and San Carlos. The surface of the island is flat, and covered with saline marshes, from which the inhabitants obtain large quantities of salt. An ancient bridge across the Santi Petri connects the island with the continent.

LEONOWENS, ANNA HARRIETTE CRAWFORD, b. at Caernarvon, Wales, Nov. 5, 1834. Her father, Thomas Maxwell, while acting as aid-de-camp to sir J. Macnaughton, was killed by the Sikhs on the frontiers of Lahore. She married an English officer in India, Thomas Leonowens, who died in that country, leaving her with two children dependent upon her for support. By recommendation of the British consul at Singapore, she was appointed governess in the family of the late first king of Siam, who, having himself been taught English by American missionaries, desired his children to be educated in that language. She held this position for four years, 1863-67, acting at the same time as secretary to the king in his extensive English correspondence. She acquired much influence over the monarch as a mediator in behalf of the victims of arbitrary oppression, and carefully trained his son and successor, who, on coming to the throne in 1868, abolished slavery throughout his dominions. On retiring from her post in 1867 she came to America, and took up her residence in New York. She has published 2 vols., *The English Governess at the Court of Siam*, and *The Romance of the Harem*.

LEONTIUS, or LEO PILATUS, b. either in Thessalonica or Calabria, at a date unknown; came to Florence in 1360, and was employed by the republic at the request of Boccaccio as a teacher of Greek. He made the first translation of Homer into Latin, and was the first to lecture in public upon the great poet in western Europe. He went to Venice, where he met Petrarch, a pupil of Barlaam. From Venice he went to Constantinople, intending to return to Italy, but died on the voyage across the Adriatic. He furnished Boccaccio with the materials for his treatise on the genealogy of the heathen gods.

LEOPOL. See LEMBERG, *ante*.

LEOPOLD II., LOUIS PHILIPPE MARIE VICTOR, King of Belgium, b. April 9, 1835, a son of king Leopold I. and queen Louisa, daughter of Louis Philippe of France. Married in 1853 to Marie Henriette, a daughter of the archduke Joseph of Austria; ascended the throne, Dec. 10, 1865.

LE'OPOLD I., Emperor of Germany, 1640-1705; b. Austria, son of Ferdinand III., of the house of Hapsburg, and of Maria Anna of Spain. He was educated for the church, but on the death of his brother in 1655 he ascended the throne of Hungary, and in 1657 was proclaimed king of Bohemia. In 1658, after the death of Ferdinand III., a contested election for emperor was decided in his favor and against Louis XIV. of France, notwithstanding that the latter had gained four of the electors over to his side. His reign, continuing through the half century that followed, was remarkable for the number of important wars which occurred, making that period an eventful one for the whole continent of Europe, in all of which he was prominently concerned. In 1657 he assumed the government of the hereditary states of the house of Austria, and, finding that the Turks had invaded Hungary and Moravia, he made war on them, and with his gen., Montecuccoli an Italian, completely routed them at the battle of St. Gotthard, near Kenhausen, in 1664, after which a truce of 20 years was arranged. In July, 1683, he was defeated near Raab by an army of 200,000 men, the combined forces of the porte, under Kara Mustapha, and the disaffected Hungarian nobles, with Tekeli (whom they chose as their leader in 1682), who had joined the Turks, Louis XIV. secretly inciting the Turkish invasion. In Sept., 1683, with Sobieski of Poland, who marched from Cracow with 16,000 men, and the duke of Lorraine with 70,000 men of the imperial

forces, who made a junction at the Danube, he fought a battle in the vicinity of the Austrian capital, defeated the Turks, who had captured it, saving Vienna, and ridding Hungary of the Turkish troops after a series of desperate encounters. In 1686 Buda was retaken after a memorable siege. In 1687 the diet of Presburg acquiesced in the proposition to make the male line of the Hapsburgs hereditary in Hungary. In 1691 occurred the victory of Zákánkemén. In 1697 he brought the Turkish war to a close, by gaining, with prince Eugene, a great victory near Zenta in Hungary, and obtained secure possession of Transylvania in 1699. In 1701 he renewed his alliance with England and Holland, and in the following year a number of victories were won by his army under command of prince Eugene, and in 1704 the triumph of Blenheim in connection with the allied powers. He carried on three wars against Louis XIV., one followed by the treaty of Nimwegen in 1678, one the peace of Ryswick in 1697, and the war of the Spanish succession, in which his son, the archduke Charles, laid claim to the throne made vacant by the death of Charles II. in 1700, and the termination of which, as well as that of the great Hungarian insurrection under Franz Rakoczy, he did not live to see. The most significant events of his reign were the establishment of a ninth electorate in favor of Ernest Augustus, duke of Brunswick-Lüneburg, who in 1692 became the first elector of Hanover; the assumption of the regal title by Frederic, elector of Brandenburg and duke of Prussia, in 1701; and the establishment of a permanent diet, attended by the electors' representatives instead of the electors in person. He was married three times; his first wife was Margarita Theresa, a Spanish princess. He was succeeded by his eldest son, Joseph I.

LEOPOLD II., Emperor of Germany, 1747-92; b. Germany; son of emperor Francis I., of Lorraine, and Maria Theresa of Austria, and brother of Marie-Antoinette. In 1765, on attaining his majority, he succeeded to the throne of Tuscany, which had been taken in the place of Lorraine, as Leopold I. of Tuscany, and ruled 25 years. He then resided in Florence. He governed with great discretion, advocating reform in every department of church and state, making a revolution in ecclesiastical matters, establishing a new criminal code and penitentiaries. In 1782 he abolished the inquisition, and during his reign removed the penalty of death, equalized the land tax, and favored free trade. He founded schools and almshouses. In 1790, on the death of his brother, Joseph II., he assumed the government of the Austrian dominions and the German empire, and removed to Vienna. Finding that with his possessions he had inherited a troublous condition of state affairs, in 1790 he made satisfactory terms with Frederick William II. at Reichenbach, and was unanimously elected emperor of Germany. Out of respect to Hungary, he bound himself by an oath to act strictly in accordance with constitutional law, restoring to the Belgians the privileges of which they had been deprived, and giving Tuscany to his son Ferdinand. In 1791 pacific terms were arranged with Turkey at Sistova, and at Pilnitz, in a council composed of Frederick William Augustus of Saxony and others, a plan was concerted relative to the anticipated movement of the French revolution and the restoration of Louis XVI. In 1792 he formed an alliance with Prussia. His wife was Maria Louisa, daughter of Charles III. of Spain. He had 16 children. His eldest son, Francis, was the last of the elective rulers, and was styled Francis I. of Austria and Francis II. of Germany. In 1874 his correspondence with Francis II. and the empress Catharine was published.

LEOPOLD II., Grand Duke of Tuscany, 1797-1870, a son of the grand duke Ferdinand III. In 1847 he granted a free constitution; fled to Naples in 1849, but was recalled by his subjects shortly afterwards. The national troubles that followed compelled him in 1859 to flee with his family to Vienna. In doing so he abdicated in favor of his son, but this action was disregarded, Tuscany being by vote of the people incorporated into the kingdom of Italy. Died an exile in Bohemia.

LEOPOLD I., Prince of Anhalt-Dessau, 1676-1747. The emperor, Leopold I., observing his passion for military affairs, made him in 1688 col. and chief of a regiment of horse. On the death of his father, a Prussian field-marshal, in 1693, he entered the Prussian service and took command of his father's regiment. He was shrewd, passionate, and self-willed, and having as a youth fallen in love with the daughter of a druggist, married her in spite of all remonstrances when he became of age, inducing the emperor to raise her to princely rank. From 1698 to 1713 he served with distinction and in very responsible positions under Eugene and Marlborough in the Netherlands, on the Rhine, and in Italy, and when Frederick William I. ascended the throne of Prussia, he placed him at the head of the army. He was the very incarnation of the military spirit, and the later triumphs of the Prussian army may be traced to the influence of his genius for military organization and discipline. He was great alike in the capacity for details and in the qualities which fit men to handle the largest armies. In the Swedish and Silesian wars he won great distinction. Died at Dessau.

LEOSTHENES, a distinguished gen. of Athens, a favorite with the mercenary soldiery, who chose him for their leader. He was famous for the warmth with which he espoused the cause of democracy, and the violent tone of his speeches drew forth the wise reproof of Phocion: "Young man, thy words are like the cypress, tall and large, but they bear no fruit." He belonged to the party of Demosthenes. Among his

exploits were the defeat of the Bœotians, near Platea, and the successful opposition to the entrance into Greece of Antipater, at Pylæ, whom he defeated and imprisoned in Lamia, a town in Thessaly. From this siege the Lamian war took its name, and in one of the battles he was killed. His portrait was painted by Arcesilaus, and placed in the Peiræus, where it was esteemed by Pausanias an object worthy of notice. He left an untarnished reputation, but with him passed away the last remnant of the glory of Athens.

LEPANTE, NICOLE REINE ÉTABLE DE LABRIÈRE, Madame, 1723-88; b. Paris; was married in 1748 to the famous mechanician and clock-maker Jean André Lepante, and was the principal author of his *Traité d'horlogerie*. She assisted Clairant and Lalande in the calculation of the return of Halley's comet in 1757. She was the author of *Observations* published in the *Connaissances des Temps*, an astronomical annual of the academy of sciences; of *Tables of the Sun, Moon, and Planets*; of *Expositions du calcul Astronomique*.

LEPANTO, BATTLE OF, a naval engagement fought Oct. 7, 1571, in the gulf of Lepanto, near Corinth, between the combined fleets of Spain, Venice, Genoa, Malta, and the papal states against the whole maritime force of the Turks. The Christian allied fleet, consisting of 210 sail, was commanded by Don John of Austria. The Ottoman fleet numbered about 300 galleys under command of Ali Pasha. The Christian fleet was met by the Turks where the gulf of Patras flows into the gulf of Lepanto; the Turkish line was broken, the admiral Ali was killed, and Cervantes was dangerously wounded and his left hand rendered useless for life. The Venetian ships making an attack at the same time on the Turkish right, a crushing defeat of the Turks was accomplished, but Barbarigo, the Venetian commander, was mortally wounded. More than 3,000 Christians were killed. The Turks lost 30,000 men in killed and wounded, and 107 galleys were taken, besides a large number sunk. Thousands of Christian galley slaves were liberated by this victory. The Christian fleet having been stationed, previous to the attack, at the mouth of the Achelous river in the neighborhood of the Curzolari islands, the name of the latter has been given to the battle by Italian writers.

LEPANTO, GULF OF, a considerable body of water lying n. of the isthmus of Corinth, s. of Hellenas, and n.e. of the Morea. It is 75 m. in length and about 13 m. in breadth, except where the bay of Salona (the Crissean gulf of the ancients) stretches away for 8 m. toward the n., where the bay of Corinth extends to the s.e. and in the direction of the Aleyonian sea, now called Livadostro bay. It once included the gulf of Patras, and was called the Corinthian gulf. It is fed from the w. by the gulf of Patras, through the straits of Lepanto, sometimes called the Little Dardanelles, which flow past the city of Lepanto, connecting the gulf with the Mediterranean. The adjacent country presents an irregular coast line; the soil is generally fertile and the surface is hilly. The gulf in such environment presents the appearance of a picturesque inland lake.

LEPIDOSTEIDÆ, a family of fishes which are the only living representatives of the order *rhomboganoidea*. They have an elongated, nearly cylindrical body, covered with rhomboidal scales. The head terminates in a long, beak-like snout, with nostrils near the end of the upper jaw, which is longer than the lower. The dorsal fin is set well back and above the anal fin. They include the genus *lepidosteus*, to which the gar and alligator gar-fish of the North American lakes and rivers belong. They somewhat resemble the true gar-fishes in appearance. See GAR-FISH, *ante*.

LEPORIDE, the name given by the French to a remarkably prolific hybrid between the common European hare and the rabbit. It is extensively bred in France, where it is highly esteemed for food.

LEPTANDRA, a generic name proposed by Nuttall for *veronica virginica*, or culvus physic. It is the pharmaceutical name for that plant, and the resinoid extracted from it has the name of *leptandrin* in the books and at the drug-stores. In America it grows in rich woods from Vermont and Wisconsin southward. It is often cultivated; blooms in July and Aug. Leaves whorled in fours to sevens; short leaf-stalk; leaf lanceolate, pointed, finely serrate; spikes panicled; stamens much exserted; corolla small, nearly white. See SPEEDWELL (*ante*).

LEPTOCARDIA, an order of fishes according to Müller's classification, including but a single living representative, the anomalous *amphioxus lanceolatus*, or lancelet. See LANCELET, *ante*, and PHARYNGOBRANCHII.

LEQUESNE, EUGENE LOUIS, b. Paris, 1815; admitted to the bar in 1839, but soon relinquished the law and applied himself to the study of sculpture at Rome under Pradier, and began to exhibit in 1845. His works are a "Dancing Faun," in the garden of Luxembourg; "Victory, on Napoleon's Tomb;" "Bathing Girl;" "Lesbia;" "A Roman Slave;" "Pegasus," for the new opera-house.

LERDO DE TEJADA, SEBASTIAN, b. Jalapa, Mexico, 1825; educated at Puebla for the priesthood, but afterwards studied law at a college in the city of Mexico. He was received at the bar in 1851, and in 1855 was a magistrate, and two years later was made minister of foreign affairs. In 1861 he became a member of congress, and was

re-elected, serving also as president of that body. In 1863 he was, first, minister of justice, and then minister of foreign affairs, always being allied with the liberal party. He was one of the most prominent leaders in opposition to the French intervention in Mexico, and preserved a consistent attitude of antagonism to the unfortunate Maximilian, the representative in Mexico of the aggressive policy of the French empire. The execution of the Austrian arch-duke may be legitimately charged to the determination of Lerdo de Tejada and Benito Juarez. On the return of the republican government to the capital in 1867, after the withdrawal of the French, Juarez was re-elected president, and Lerdo became vice-president, succeeding Juarez as president in 1872, on the death of the latter. In Oct. of that year he was elected president for four years. In 1875-76 a revolution broke out in several Mexican states at once, and gen. Porfirio Diaz came forward as the leader of the insurrection, having previously headed similar revolutionary movements. In July, 1876, an election took place, and Lerdo was continued at the head of the government, his term of office to expire in Nov., 1880. Diaz, at the head of an army, marched against the capital, and on Nov. 26, 1876, president Lerdo and his cabinet fled to Acapulco to take passage on the steamer running between San Francisco and Panama, leaving Diaz in supreme control of the government. Lerdo visited the United States early in 1877, and was hospitably received in New York and other principal cities. He has not since been prominent in political affairs. He is characterized as being profoundly skilled in politics and diplomacy, an astute and courageous leader, and a pronounced adherent of the policy of reform in his native country.

LÉRIDA, a province of n.e. Spain, in the district of Catalonia; separated from France by the natural frontier line of the Pyrenees mountains, and the little republic of Andorra with its snow-capped mountain-peaks; 4,775 sq. m.; pop. 330,348. In the n.w. section are the peaks of Maladetta and Pic Nethou, rising to a height of 11,168 ft., the culminating point of the Pyrenees. It is drained by affluents of the Ebro, a rocky, rapid river, rising in the mountains and flowing s.e., and by the headwaters of the Têr and the Segre. Its valleys and plains are kept green and fertile by numberless little rivulets that trickle down from the mountains, and which, diverting the river water, make its soil the richest, as it is the most cultivated, in Spain. Its hills are well wooded, pine trees growing high up on the mountain side, and contain valuable mineral deposits. It contains several considerable fortified towns, with institutions of learning, including Lérída in the extreme s., one of the most important military posts in Spain.

LÉRINS, THE, islands of the Mediterranean sea, situated $2\frac{1}{2}$ m. from the s.e. coast of France, between capes Roux and Guaroupe, belonging to the department of Alpes-Maritimes. The group includes two small islands of great historic interest. Ste. Marguerite (the Leron of the ancients), 2 m. in length, is nearest the seaport of Cannes, 15 m. s.w. of Nice, a favorite resort for invalids in the winter season, brought into public notice in 1837 by Lord Brougham. At Frejus, near by on the mainland, Napoleon landed when he escaped from Elba in 1815. It contains the garrisoned citadel, Monterey, now a military prison, where from 1686 to 1698 the mysterious "man in the iron mask" was imprisoned. It is shaded by thick woods, and from the same prison in 1874 marshal Bazaine made his escape by night. Its monastery of Ste. Marguerite held the royal captive Francis I., king of France, while on his way to Madrid, a prisoner of war. Its companion island, St. Honorat (the Lerina of the Romans), of even less area, contains the ruins of an abbey, the convent of Lerins, of the Benedictine order, with fortifications, founded by St. Honoratus, archbishop of Arles, becoming in the 5th c. the point where were centered the most vigorous theological minds of that age in Europe. Among its abbots appear the names of St. Vincent de Lérins and St. Hilary. Having been destroyed by the Saracens, the convent was restored by the Benedictines, but in the turbulent outbreak of the beginning of the French revolution it was reduced to a mass of ruins, and has since been inhabited only by a few monks.

LERMONTOFF, MIKHAIL IVANOVITCH, 1814-1841; was of a noble family; entered the military service, and early became an officer of the imperial guards. A poem written on the death of the poet Pushkin, who was killed in a duel in 1837, in which the author made severe insinuations against the court, so displeased the emperor Nicholas, that he struck him off the list of the officers of the guard, and sent him to serve in the army of the Caucasus, where he remained until his death. The poem, which long circulated in manuscript in Russia, was printed for the first time in 1856 in the *Polar Star*, a Russian periodical published in London. While in the Caucasus, he wrote a novel entitled *The Hero of our Time*. Pechorin, a fellow-officer in the army of the Caucasus, thinking himself described in the novel, challenged and killed Lermontoff. Most of his poems were composed while in the army, and published in St. Petersburg, gaining for him the title of the poet of the Caucasus. The most prominent were, *The Novice, or the Young Circassian*; *The Dream of Valerika*; *The Demon*; *The Song of the Czar Ivan Vasilievitch*; *Hadj-Abrek*, a drama; *Ismaïl Bey*. Most of these were collected after his death, and in 1852 a German translation was published in Berlin. Next to Pushkin, he is considered the most distinguished Russian poet of the Byronic school.

LERO, or LEROS, an island off the s.w. coast of Asia Minor near Caria, and not far from the mouth of the Menderes river. It forms one of a cluster of islands in the Ægean sea, called the Sporades, and is governed by Turkey; n. lat. $37^{\circ} 10'$, e. long. $26^{\circ} 50'$.

pop. 2,000. It is 9 m. in length, varying from one-half to 4 m. in breadth. On the e. side are interesting ruins of a castle; also a considerable town, Lero, overlooking a bay. It was colonized about 500 B.C. The coast is irregular, the surface is mountainous, and the soil in the valleys is fertile, producing grain, olives, wax, and honey. Sheep are raised to some extent. The site of an ancient temple dedicated to the goddess Artemis Parthenos is now occupied by a convent.

LEROT. See DORMOUSE, *ante*.

LEROUX, PIERRE, 1798-1871; b. France; having pursued a course of scientific study in the schools of Paris and Rennes, entered a printing-office in the French capital. In 1824, with De Broglie, Cousin, and others, he established the *Globe*, a newspaper of a literary and philosophic character, which expounded the views of the *doctrinaires*, and afterward in the revolution of 1830, when in sole charge of the journal, he embraced the tenets of the St. Simonians and helped to disseminate their doctrines. In 1831, a year before the career of *Enfantin*, one of the founder of St. Simonism, culminated in imprisonment, he separated from him, and joined Jean Earnest Reynaud as his collaborator on the *Revue Encyclopédique*, which they conducted for three years with small success. In 1838, with the same associate, he commenced the *Encyclopédie Nouvelle*. In 1839 he published *De l'Humanité de Son Principe et de Son Avenir*, elucidating his philosophical and socialistic ideas, and giving his conception of the progressive nature of all things. In 1841, associated with Viardot and Mme. George Sand, he established the *Revue Indépendante*. In 1845 he removed to Boussac, devoted himself to journalism in the direction of radical politics, and was elected mayor; he was also chosen representative to the national assembly. In 1851 he took up his residence in Jersey, but in 1869 in the general amnesty he returned to Paris, having passed some time in Switzerland. As a socialist he is considered pure, honest, and genuine in his convictions, combining mystical doctrine with a system for social organization. In 1843 he published a translation of Goethe's *Werther*, with a preface by Mme. George Sand. Besides several works of greater pretensions he published *Job*, a drama, and *The Samarese Beach*, a philosophic poem.

LE ROY, a village and township of Genesee co., N. Y., 25 m. s.w. of Rochester and 50 m. e. of Buffalo, on the Erie, Central, and State Line railroads. Pop. of village, 2,634; of township, 4,627. It has 7 churches, 2 banks, 2 weekly newspapers, and various mills on Oatka creek. It is the seat of Ingham university for ladies, and has an academic institute, an art conservatory, and a public library.

LEROY, WILLIAM E., b. N. Y., 1818; entered the navy as midshipman in 1832, promoted to be a past midshipman in 1838, a lieut. in 1843, a commander in 1861, a capt. in 1866, a commodore in 1870, and a rear-admiral in 1874. He commanded the *Key-stone State* in the engagement with confederate iron-clads off Charleston in Jan., 1863, and the *Oneida* at the battle of Mobile bay, Aug. 5, 1864, and on both occasions was conspicuous for skill and bravery.

LEROY D'ETIOLLES, JEAN JACQUES JOSEPH, 1798-1860; b. Paris; educated at the imperial lyceum, studied medicine and took his degree of M.D. in 1824. In 1822, before graduating, he presented to the academy of surgery a set of instruments of his invention for performing the operation of lithotritry (q.v.). The invention was claimed by Civiale and Amussat, and it was only after an examination by the academy that it was awarded to Leroy d'Etiolles. In 1831 the academy awarded him a prize of 6,000 francs for the lithotritry forceps. He was the author of other surgical inventions and of a *Histoire de la Lithotritie* (1839), and also translated into French *Cooper's Dictionary of Surgery*.

LERY', JEAN DE, b. Geneva, Switzerland, 1534; the first Protestant who preached on the American continent. He was a Calvinistic minister, engaged in the expedition organized by Villegagnon under the protection of the great Protestant statesman Coligny, to plant a French Protestant colony in Brazil. The colony was planted on an island in the bay of Rio Janeiro in 1558, where Lery preached to the colonists until, by the treachery of Villegagnon, and the attacks of the Portuguese a few years afterwards, the colonists were forced to retire, mostly returning to France. Lery went to France, and in 1560 was living in Geneva; afterwards he was pastor of congregations in various cities of France. Many of his associates were victims of the massacre of St. Bartholomew.

LESCARBOT, MARC, 1570-1630; b. France. His work entitled *Discours sur la réunion des Eglises d'Alexandria et de Russie à la sainte Eglise Catholique* appeared in 1599. In 1605 he took part in founding the colony of Acadia and that of Port Royal, and in 1609 published the *Histoire de la nouvelle France*, and a collection of poems, entitled *Les muses de la nouvelle France*. The history embraced a sketch of Cartier's voyages, the French settlement of Florida, and of Canadian colonization. It went through three editions; the last, with addition of other works, was published in 1618. The first edition was translated into English and German. Lescarbot was afterwards an advocate in the French parliament and the author of several unimportant works.

LES'GHIANs, a body of 300,000 people, inhabiting the mountains of western Daghestan in the Caucasus (Asiatic Russia), and speaking various languages. For many years they made a brave resistance to Russian aggression. Since 1859 they have been

peaceable. Their religion, a modification of Islamism, is called Muradism, and was founded about 1830 by a native prophet.

LESLEY, JOHN, 1527-96; b. Scotland; educated at King's college, Aberdeen, and in several continental universities, and in 1554 became professor of common law at Aberdeen. He was a partisan of Mary, queen of Scots, who made him bishop of Ross. He was also her diplomatic agent, and implicated in her project for marrying the duke of Norfolk as well as in the resulting rebellion of 1568. In 1573, in her service and for the promotion of Roman Catholic interests, he went to France, where he received ecclesiastical appointments, being made bishop of Coutances in 1593. Soon after this he was compelled to flee for refuge to Brussels, where he died. He wrote much in support of the cause of his royal mistress, and published in Rome, 1578, a *History of Scotland*, in 10 books, seven in Latin, and the last three in the Scottish dialect.

LESLEY, JOHN PETER, b. in Phila., 1819; graduated at the university of Pennsylvania in 1838, and at Princeton theological seminary in 1844. He assisted in the first geological survey of Pennsylvania, 1839-41, and prepared the maps and illustrations for the final report in 1842. After completing this work he went to Europe, traveled on foot through France, and attended lectures at the university of Halle. In 1845 he undertook to establish the colportage system of the American tract society in the northern and middle counties of Pennsylvania. Two years later he became pastor of a Congregational church at Milton, Mass., but left the ministry in 1850 for the work of a professional geologist. Settling in Philadelphia, he was appointed secretary of the American iron association in 1855, secretary and librarian of the American philosophical association in 1858, professor of geology and mining engineering in the university of Pennsylvania in 1873, and state geologist of Pennsylvania in 1874. He examined the Bessemer iron-works of Europe in 1863; was appointed by the U. S. senate commissioner to the exposition of 1867, and spent the following season in Egypt. Among his works are a *Manual of Coal and its Topography*, and a *Guide to the Iron-Works of the United States*.

LESLIE, CHARLES, 1650-1722; b. Ireland; graduated at Trinity college, Dublin; removed to England in 1671 and began the study of law at the Temple, but soon abandoned this for divinity, and was admitted to orders in the church of England in 1680. Returning to Ireland he was appointed in 1687 chancellor of Connor. Living in Ireland at the time of the revolution he distinguished himself in disputations with the Roman Catholics in defense of Protestantism. Though a zealous Protestant he adhered to king James, refusing to acknowledge William as his rightful sovereign. Deprived of prospect of preferment in the church, he left Ireland and came to England, where he gave himself to ecclesiastical and political controversy. In 1689 he had a controversy with bishop Burnet in defense of the doctrine of non-resistance. After the death of James II. he transferred his allegiance to his son, the pretender, was sent by some opulent Jacobite gentlemen in 1709 to Bar-le-Duc to convert him, and when the pretender removed to Italy he accompanied him. But being a Protestant he was dissatisfied with his inconsistent position, and in 1721 sought and obtained permission from George I. to return to his native land, and took up his abode at Glaslough, Ireland. His theological works excited much attention at the time. The most prominent are: *A View of the Times—their Principles and Practices*; *The Massacre of Glencoe*; *The Axe laid to the Root of Christianity*; *Querel a Temporum*; *A Short and Easy Method with the Deists*. He wrote against Quakers, Presbyterians, Deists, Jews, Socinians, and Papists. In his political controversies he was the advocate of high monarchical principles. Leslie is declared to have been a man of great learning and strict piety.

LESLIE, ELIZA, 1787-1858, b. Philadelphia. She spent seven years, 1793-1800, with her parents in Europe. Her first appearance as an author was in *Seventy-five Receipts for Pastry, Cakes, and Sweetmeats*, published in 1827. Her other publications are: *The American Girl's Book*; *Mrs. Washington Potts—a tale*; *Domestic Cookery Book*; *House-Book*; *Ladies' Receipt Book*; and a novel entitled *Amelia, or a Young Lady's Vicissitudes*.

LESLIE, FRANK, 1821-80; b. England; was the son of Joseph Carter, a glove-manufacturer of Ipswich, and was named Henry Carter, a name which he changed on his removal to the United States, adopting that by which he was more generally known and under which he did business, by sanction of the legislature of New York. The name "Frank Leslie" had been employed by him as a pseudonym when, as a boy, he first practiced wood-engraving, and afterwards when he was attached to the engraving department of the *London Illustrated News*. Mr. Leslie emigrated to America in 1848, and was engaged by Gleason and Ballou, who were the first to found an illustrated newspaper in this country. Their paper was published in Boston, where Mr. Leslie remained until 1853, when he removed to New York to join the staff of Mr. P. T. Barnum, who, in company with Moses Y. Beach, at that time started the *Illustrated News* of that city. During the first years of his newspaper experience in America, Mr. Leslie introduced an important improvement in printing from blocks through the system of "overlaying," as it is termed, a process which effectually brings out the best qualities of an impression, and which is now generally adopted wherever illustrations are printed. In 1854 Mr. Leslie commenced the publication of the *Gazette of Fashion*, which proved to be the foundation of one of the largest publishing houses in the world; issuing at one

time seventeen different periodical publications, all illustrated, many of which obtained world-wide celebrity. Mr. Leslie may be said to have created the modern idea of illustrated journalism, by first giving pictorial representations of important occurrences and events, with a just perception of the value of rapidity as well as accuracy of execution in their delineation. The list of his publications included *Frank Leslie's Illustrated Newspaper*, *The Chimney Corner*, *The Lady's Magazine*, *The Popular Monthly*, *The Sunday Magazine*, etc.

LESLIE, GEORGE DUNLOP, b. London, 1835; son of Charles Robert Leslie; in his boyhood attended the Mercers' school; received artistic instruction from his father and at a school of art in Bloomsbury, and was admitted as a student to the royal academy in 1854. He began to exhibit pictures at the academy in 1857, was made an associate in 1868, and has since attained eminence in his art.

LESLIE, HENRY DAVID, b. London, 1822; studied music under the direction of prof. C. Lucas, and founded a choral society in 1856. In 1864 he became principal of the college of music, founded in the same year in London. His work has taken the form of symphonies, overtures, oratorios, cantatas, anthems, songs, duets, and pieces for the piano. He has also composed a romantic opera in three acts.

LESSEE—LESSOR. See LANDLORD and TENANT.

LESSEPS, FERDINAND, Viscomte de; b. Versailles, France, 1805. His father was consul or commercial agent of the French government, in many different countries. His mother was sister of the grandmother of the empress Eugénie. De Lesseps was educated in Paris; at the age of 20 was an *attaché* of the French consul-general at Lisbon; at 22 was employed in the commercial department of the minister of foreign affairs, and soon after made consul at Tunis; at 26 he went to Egypt as vice-consul at Cairo, and had the management of the business of the consulate-general at Alexandria. His noble conduct during the plague in Egypt which, in 1834-5, destroyed one-third of the population, procured him in 1836 the cross of *chevalier de la légion d'honneur*. He was again made manager of the Egyptian consulate and diplomatic agent of France, and gained influence with Mehemet Ali the great viceroy of Egypt. In 1838, '39, and '42, he was appointed successively to the positions of consul at Rotterdam, Malaga, and Barcelona. When the latter city was bombarded, his devotion to the safety and comfort of the foreign residents procured him their gratitude, and thanks and decorations from several governments. He remained consul-general at Barcelona until the revolution of 1848. Then, recalled to Paris, he was appointed by Lamartine minister to Madrid. In Feb., 1849, this place was given to Napoleon Joseph Bonaparte, and Lesseps returned to Paris. He was at once sent as minister to Switzerland; but on the breaking out of war at Rome between the French troops under Oudinot, and the Italians under Garibaldi, he was charged by M. Drouyn de Lhuys with the delicate mission of restraining the French general from a too warlike attitude towards the Italians, while managing to retain the footing of the French army in Rome. During that discreditable meddling of the French with the affairs of the people of Rome, M. de Lesseps frankly informed his government of the mischievous consequences that might result from its enforced occupation of the city, of the unpopularity of the pontifical power, and of the earnestness of the resistance of the Roman people; avowing with courage his belief in the noble character and aims of Mazzini. The government in Paris, already become reactionary by the combination between Louis Napoleon and the clergy, recalled Lesseps, disavowed his acts, and let loose the French army against the Romans. He published in 1849 a little book entitled *Ma Mission à Rome*, in which he defended his acts and avowed sympathy with the Italians in their struggle under the leadership of Garibaldi and Mazzini. Towards Mazzini, then defeated, banished, and proscribed by the French power in Rome, he had the courage to express the warmest admiration of his virtues and talents. The French minister charged the council of state to examine M. de Lesseps's acts in Rome, but in the absence of specific charges, the latter refused to make any explanation to them, but published his defense in two books entitled, *Mémoire au Conseil d'Etat*, and *Une réponse à l'Examen de ses Actes*.

Out of government employ, M. de Lesseps went to Egypt in 1854, and securing the concurrence of the viceroy Mohammed-Saïd-Pacha, projected the construction of the great interoceanic canal of Suez. In 1856 he published his plans and projects under the title of *Percement de l'isthme de Suez, exposé et document officiels*. Obstacles multiplied as attention was attracted to the project. The Turkish government, at the instigation of the English, refused its authorization. The engineer authorized by the state condemned the project as chimerical. In the face of such obstructions, and with the need of enormous sums of money to construct the canal, M. de Lesseps devoted himself to the work with such tact and indomitable energy, by social persuasion, personal interviews with statesmen, capitalists, and journalists, by essays and speeches, that he not only kept the public curiosity aroused, but attracted its sympathy and confidence; won the government to his support, and secured \$40,000,000 in subscription to the capital stock required for the construction. Work was actually commenced in 1859. On Nov. 20, 1869, the completion was celebrated with imposing ceremonies.

In Sept., 1870, on the fall of Louis Napoleon, he was in Paris, and fearing for the safety of his relative, the empress Eugénie, he placed himself at her side, and saw her

safely beyond the city. In addition to numerous *brochures* on the subject of the Suez canal M. de Lesseps is author of a *Memoire à l'Academie des Sciences sur le Nil blanc et le Soudan*; also *Principaux faits de l'Histoire d'Abbyssinie*.

The connection of M. de Lesseps with the project of an interoceanic canal, across the isthmus of Panama is recent. An international society, for cutting an interoceanic canal through that isthmus, was organized in Paris in 1876; in which lieut. Wyse, of the French navy, and gen. Turr were the leading spirits. That society procured from the government of the United States of Colombia a concession or right to build a canal on its territory. M. de Lesseps secured to himself the privileges and assumed the conditions of that grant. Although the U. S. government (of North America) had spent several hundred thousand dollars in making thorough surveys of several canal routes, and had published elaborate illustrated reports of its engineers, no national, international, or private organization for the construction of the canal had been effected before M. de Lesseps took steps to convene the international congress of Paris for that purpose in May, 1879. De Lesseps was its president. That congress, after examining all the projects, decided in favor of the plan of a sea-level thorough-cut. De Lesseps was made president of a preliminary organization to make further surveys on the route selected. On Dec. 6, 1879, he went with his family to the isthmus. In the Jan. number of the *North American Review* of 1880, De Lesseps contributed what may be considered a talk to the American people on the canal question. In the Feb. number following, rear-admiral Ammen, who has been engaged many years in studying the canal routes, and who was one of the U. S. delegates to the Paris congress, reviewed M. de Lesseps's statements in a vein of polished satire indicating some irritation at the assumption of the latter. On Feb. 24, 1880, M. de Lesseps came from Aspinwall to New York with his family, with his project matured, and submitted it to American capitalists in a circular of information concerning the canal grant, cost, etc.; and visited Washington, Chicago, and San Francisco, in furtherance of his scheme. Having been the organizer, he is now the president of a company for the construction of a ship-canal across the isthmus of Panama.

The appearance and personal magnetism of M. de Lesseps are remarkable. A correspondent of the *N. Y. Tribune*, writing in June, 1880, gives the following description of him as seen at a dinner party given by Cyrus W. Field in London: "The shrewdest and most powerful of all the faces belonged to M. de Lesseps. I saw him at the opening of the Suez canal in 1869." Now, in his 75th year, "he is just as erect in figure, and alert in manner; his eyes are as bright and full, and his conversation has all the old power and vivacity." The *N. Y. Times* correspondent who met him on his arrival from Aspinwall, thus describes him: "In conversation, Lesseps is frank, eloquent, and kind, to a remarkable degree; and his age and white hairs are forgotten in the presence of his demonstrative gestures and his vigorous diction."

M. de Lesseps married a second wife soon after the completion of the Suez canal, a young creole lady, by whom he has a family of young children. He has also children by a former wife. See INTEROCEANIC SHIP CANAL.

LESSING, KARL FRIEDRICH, b. Wartenberg, Silesia, 1808; attended the school of architecture at Berlin; afterwards studied for several years under Schadow at Düsseldorf, and in 1858 was made director of the gallery of paintings at Carlsruhe. Many of his pictures have excited admiration by their strength and richness. Among the best known of his historical paintings are "The Hussites;" "Huss before the Council;" and "The Martyrdom of Huss."

LESTER, CHARLES EDWARDS, b. Griswold, Conn., 1815; a descendant of Jonathan Edwards. He resided in early life at the West and South, was admitted to the bar in Mississippi, and afterwards ordained as a Presbyterian minister. In 1840, being in Massachusetts, he attended anti-slavery meetings and made several addresses in favor of the cause, and by his own request was elected a delegate by the Massachusetts anti-slavery society to the London anti-slavery conference of that year. He remained in England after the conference closed, and, having changed his views, published *The Glory and Shame of England*—a work in which the anti-slavery professions of that country were treated as hypocritical. President Tyler, in 1842, appointed him as U. S. consul to Genoa, where he remained until 1847. Since that time he has been engaged chiefly in literary labors, having published *Condition and Fate of England*; *Life of Vespucci*; *The Napoleon Dynasty*; *Life of Charles Sumner*; and *Our First Hundred Years*.

LESTOCQ, JEAN HERMAN, 1692-1767; b. at Celle, Hanover. He chose the profession of a surgeon, and, after acquiring his education, went to Russia and received an appointment in the service of Peter the great, but on account of his dissolute habits was banished to Kazan in 1718. In 1725 Catherine I. recalled him, and appointed him surgeon to the princess Elizabeth. Such was the influence which he acquired over the princess, that he succeeded in persuading her to engage in the revolution of 1741, by which she became empress of Russia. The empress gave him a pension of 7,000 roubles annually, and the king of Poland made him a count. In 1748 his loyalty was suspected by the empress, and he was arrested, put to the torture, and banished to Ooglicht. He was recalled by Peter III. in 1761, and Catherine II. gave him an estate in Livonia, where he died.

L'ESTRANGE, Sir ROGER, 1616-1704; b. Hunstanton, Norfolk, England. After receiving a liberal education he accompanied Charles I. in his expedition against the Scots in 1639. A zealous royalist during the civil war, he was appointed by the king in 1644 governor of Lynn, and attempted to take it from the parliamentary forces, but was betrayed by two of his accomplices, tried, condemned to death as a traitor, and sent to Newgate. Having friends in parliament he was reprieved, and after four years' confinement escaped, attempted to excite an insurrection in Kent, but failing, fled to the continent. After the passage of the act of indemnity in 1652, he returned in 1653, made personal application to Cromwell, and was allowed to remain undisturbed. After the restoration he was appointed by Charles II. censor or licenser of the press. In the *Public Intelligencer*, a newspaper which he started in 1663, he slavishly supported the crown. The *Observer*, begun after the popish plot in 1679, was the organ of the tory party, and sought to defend the king from the charge of favoring popery. On the accession of James II. he was knighted for "his unshaken loyalty to the crown," and became in 1685 a member of parliament. At the restoration in 1688 he was deprived of his office of censor, and soon after became an imbecile. His political pamphlets, which were numerous, were written in a coarse, violent, abusive style. He wrote translations of *Josephus*; *Cicero's Offices*; *Seneca's Morals*; *Erasmus's Colloquies*; *Æsop's Fables*; *Queda's Visions*; *Bona's Guide to Eternity*; *Five Love-letters from a Nun to a Cavalier*.

LESTRID'INÆ, a name of a sub-family of *laridæ*, the great family of gulls, and of course allied to the sub-family *larinæ* (q.v.). The group embraces the jagers or gull hunters, so called because they pursue the smaller gulls, and rob them of the food which they may have in their beaks or which they have swallowed, making them disgorge. They have a strong beak, the upper mandible of which hooks over the lower. The typical species are principally inhabitants of the polar regions, but some are distributed in various seas. See GULL.

LE SUEUR, a co. in s.e. Minnesota, having for its western boundary the Minnesota river, drained by Cannon river, rising in its southern portion, and flowing e., emptying into the Mississippi river; 475 sq.m.; pop. '80, 16,104—11,314 of American birth, 35 colored. Its surface is diversified by extensive forests of sugar maple, oak, elm, and ash, and a large number of picturesque lakes. Its soil, having a limestone formation, is very fertile, and adapted to the raising of tobacco, wool, sweet potatoes, wine, dairy products, maple sugar, sorghum, and hops. Lumber is a staple commodity, and it has 5 carriage factories, 6 flour-mills, and 14 saw-mills. It had in '70, 51 manufacturing establishments, employing 184 hands, with a capital of \$142,275, and a product of \$407,023. The Winona and St. Peter railroad forms its s.w. boundary, following the course of the Minnesota river, and its eastern section is crossed by the St. Paul and Sioux City railroad. Seat of justice, Le Sueur.

LESUEUR, EUSTACHE, 1617-55; b. France; a painter early patronized by cardinal Richelieu, but was long obliged to earn a scanty living by designing for books, etc. His painting of St. Paul healing the sick by the imposition of hands gave him celebrity; and a series of 19 pictures executed for the drawing-room of the Hôtel Lambert, and 22 pictures illustrating the life and death of St. Bruno, are among the works which afterwards established his fame.

LESUEUR, JEAN BAPTISTE CICÉRONE, 1794-1879; b. France; an architect who received the Roman prize at the *académie des beaux arts* in 1819, and then spent several years in Italy. In 1828-30 he designed the church of Vincennes, and was associated with Godde in the admirable extensions of the *Hôtel de Ville* of Paris. In 1852 he became a professor in the school of fine arts, and in 1857 completed the conservatory of music in Geneva. He is author of the *Chronologie des Rois d'Égypte*, which was published by order of the government in 1848-50.

LA SUEUR, JEAN FRANÇOIS, 1760-1837; b. France; a musical composer; educated at Amiens. At the age of 26 he was made chapel-master of Notre Dame in Paris; afterwards one of the examiners of the conservatory of music; in 1804 imperial chapel-master, and in 1814 royal director of music. He is author of the following operas: *La Caverne*; *Paul et Virginie*; *Télémaque*; *Les bardes*; *La mort d'Adam*; also of a large number of oratorios and sacred compositions.

LETCHER, a co. in s.e. Kentucky, surrounded by ranges of the Cumberland mountains; 360 sq.m.; pop. '80, 6,601—6,600 of American birth, 142 colored. It is drained by the head waters of the Kentucky river. The s. and s.e. section is occupied by a part of the Cumberland mountain range that separates it from the state of Virginia. It has large tracts of woodland, and bituminous coal is present in some sections. Some portions of its valleys are fertile, being adapted to the raising of live stock and every variety of grain. Seat of justice, Whitesburg.

LETO. See LATONA.

LETRONNE, ANTOINE JEAN, 1787-1848; b. Paris; distinguished in early youth alike for his spirit in supporting his mother and brother and for precocity in classic learning. He traveled in his own country and in Switzerland, in 1810-12; then edited the work of Dicuil on the measurement of the earth. The government selected him to complete the translation of Strabo begun by Laporte-Dutheil. In 1819 he became

inspector-general of the university; in 1831 professor of history in the college of France; in 1832 keeper of antiquities in the royal library; in 1838 administrator of the college of France, and professor of archæology; and in 1840 keeper of the archives of the kingdom. His great work, left unfinished at his death, is the *Recueil des Inscriptions Grecque et Latines de l'Egypt*, two 4to volumes of which were published in Paris, 1842-48.

LETTER MISSIVE, in the usage of Congregational churches, the official letter by which churches are invited to send their delegates to a council. The form is not important; but in substance, the letter must credibly purport to be issued by the church (or in some cases the person or persons) desiring the council; must be addressed and a copy sent to each invited church; must appoint the time and place of convening; must show the names of all churches similarly summoned to compose the council; and must plainly designate the case or cases which are to be submitted for advice or action. Churches may decline to respond to the invitation conveyed by a letter missive; but when it has been issued and acted on by the invited churches in the appointment of their delegates, it becomes the charter of the council; and as such it cannot be changed either by the church which sends it or by the council convened pursuant to it, in regard to either the object or the membership which the latter has designated for the council. Thus the membership indicated by the letter missive cannot be enlarged; and the council, though it may refuse to act under the letter, cannot act at all outside of its limitations. In strict theory letter missives should summon churches only, but in practice they are often issued to individuals also.

LETTERS (*ante*). *Letters rogatory* are an instrument sent by a judge in the name and by the authority of his court to a court in another jurisdiction, requesting the latter to have examined a witness within its jurisdiction, in regard to a cause pending in the former court, upon written interrogatories filed in said cause. The instrument is addressed to any foreign court with civil jurisdiction, relates the pendency of the cause in the home court, and the names of the witnesses residing in the foreign jurisdiction, and requests the foreign court to cause such witnesses to be examined, and their depositions to be taken and returned with the letters to the home court. Letters rogatory are not in frequent use at present, though occasionally resorted to in admiralty courts. They are necessary where a foreign government refuses to execute commissions issued to private persons, and oaths can be administered and depositions taken only by judicial officers. *Letters testamentary* are an instrument issued by a judge who has jurisdiction of probate matters, declaring that a certain will has been admitted to probate, and giving the executor power to administer the estate. Such an instrument granted to the administrator of a person dying intestate is called *letters of administration*. The original will is usually deposited in the registry of probate, and a copy, under seal, with the letters annexed, is returned to the executor or administrator. Such letters do not extend over assets of the decedent situated in another state. For such assets ancillary administrators must be appointed, to whom additional letters must issue. See **EXECUTOR**; **PROBATE COURT**; *ante*.

LETTERS, PROPORTIONATE USE OF. The following tables represent the conclusions based on the experience of printers, with regard to the relative frequency of use of the letters of the alphabet in English composition. The first table exhibits the general use; the second, that of initials:

E.....	1000	H.....	540	F.....	236	K.....	83
T.....	770	R.....	528	W.....	190	J.....	55
A.....	728	D.....	392	Y.....	184	Q.....	50
I.....	704	L.....	360	P.....	168	X.....	46
S.....	680	U.....	296	G.....	168	Z.....	22
O.....	672	C.....	280	V.....	158		
N.....	670	M.....	272	B.....	120		

The proportion of their use as initial letters is as follows:

S.....	1194	M.....	439	W.....	272	Q.....	53
C.....	937	F.....	388	G.....	266	K.....	44
P.....	804	I.....	377	U.....	228	Y.....	27
A.....	574	E.....	340	O.....	206	Z.....	13
T.....	571	H.....	308	V.....	172	X.....	8
D.....	505	L.....	298	N.....	153		
B.....	463	R.....	291	J.....	69		

LETTIC RACE, a branch of the Slavic family, subdivided into the Lithuanian, the Prussian, and the Lettic proper. The Lithuanian has preserved certain characteristics of the Indo-European languages, some of which are identical with those of the Sanskrit. It appears to be the connecting-link between the Slavic and the other Indo-European languages, and is particularly necessary for the understanding of Slavic. This tongue is spoken among the peasantry, to the number of 200,000, in some parts of East Prussia, about the towns of Memel, Tilsit, etc.; while nearly 1,300,000 of the same people are found in Russia. The Prussian language was formerly spoken along the shores of the Baltic, between the Niemen and the Vistula, by about 2,000,000 people, but has gradually been superseded by the German. The Lettic race proper still exists in Courland, in Livonia, and on the peninsula that separates the Curische sea from the Baltic. Here the Lettic language is spoken, which bears about the same relation to the Lithuanian that the Italian does to the Latin, being a modernized dialect of the older tongue. The

Lettes of Livonia, now occupying the s.w. part of the province, are naturally intelligent, and are very apt in any constructive process requiring handiwork. They make their own furniture, rude agricultural implement, and other necessities, but have no aptitude for trade, and are not energetic. They number in Livonia between 300,000 and 400,000, and though serfs until emancipated in 1818, are now in about the same condition as the German peasantry. Both women and men ride on horseback or in sledges; their dwelling-houses have different apartments, an oven, and chimneys; differing from those of the Esthonians, which have but one room and no chimney, though these also form a part of the population of Livonia. The early history of Livonia is unknown, as it was not until 1158 that any trade was opened between that country and the rest of Europe, or any information spread abroad concerning it. Germans settled there a few years later, and converted the natives to Christianity. In the earliest times Livonia belonged to Russia, paying tribute, but having its own government. During the troubles in Russia the Livonians made themselves independent, but were again brought under subjection in the time of Peter the great. The first mention of Lithuania occurs in a chronicle of A.D. 1009, and it was not until the 13th c. that the half-savage barbarians inhabiting the country were conquered by the warrior-monks sent hither by Albert, bishop of Riga. The Lithuanians remained idolaters until the end of the 14th c., their deities presiding over the seasons, elements, and particular occupations. It is to be remembered that the Lithuanians are Lettes, although their language is more ancient than the existing Lettonian, which may be said to be one of its dialects. The only existing monuments of the old Lithuanian language are a catechism in Prussian, compiled about 1545; and an Eucharistion or church-service (Königsberg, 1561). The Lettonian differs from the other Lithuanian dialects in having an admixture of Finnish words. It has been employed in the translation of the Bible, and it is honored with a professorship in the university of Dorpat.

LEUCITE (Gr. λευκος, white), a natural silicate of alumina and potash, belonging to the feldspar section. It crystallizes in the monometric system, the usual form being that of the trapezohedron; surfaces of crystals are even, without much luster. It is often found in grains. Hardness 5.5 to 6; sp. gr., 2.483 to 2.49 (Dana). It has a vitreous appearance, and a smoky gray color. Translucent to opaque. Fracture conchoidal. A specimen analyzed by Klaproth from Mt. Vesuvius gave: Silica, 53.75; alumina, 24.625; potash, 21.35=99.725. Another from Pompeii gave: Silica, 54.5; alumina, 23.5; potash, 19.5. Before the mouth blow-pipe flame it is infusible, except with borax or carbonate of lime, when it melts to a clear globule. On the addition of cobalt solution to the globule, and reheating, a very beautiful blue is produced. This mineral is abundant on the Rhine, near Andernach, but at Vesuvius the finest crystals are found. Some of the older lavas appear to be chiefly composed of it, especially near Rome and Albano. The leucitic lavas near Rome have been used for 2,000 years for making millstones, and such stones already formed have been found in the excavations at Pompeii. From having a form somewhat resembling a common variety of garnet it has been called white garnet. Leucite sometimes becomes changed to glassy feldspar.

LEUCKART, KARL GEORGE, FRIEDRICH RUDOLF, b. Helmstedt, Brunswick, 1823; a student of medicine and natural science under Wagner at Göttingen, and in 1850 appointed professor of zoology and comparative anatomy at the university of Giessen. His helminthological researches have attracted particular attention.

LEUCOTHEA. See INO.

LEURET, FRANÇOIS, 1797-1851; b. Nancy, France. Being unable to complete his medical studies from want of money, he enlisted as a private soldier, and while with his regiment attended the lectures of the celebrated alienist Esquirol, and through the influence of a friend he procured a discharge from the army and a situation as an assistant in the insane asylum of Royer-Collard, at Charenton. He was soon appointed one of the house physicians of the asylum. Before graduating in medicine he published several medical essays. In 1826 he received his degree of doctor in medicine, and returned to Nancy to practice his profession, but soon went again to Paris and became Esquirol's assistant, and took the editorial charge of the *Annales d'Hygiène et de Médecine Légale*. In 1832, with two friends, he published a paper on the frequency of the pulse in the insane, and also on head measurements. In 1834 he published his celebrated *Fragments Psychologiques*. In 1840 appeared his *Traitement Moral de la Folie*, a work which placed him as the compeer of the most brilliant psychologists. He was afterwards appointed director-in-chief of the Bicêtre, and published other works.

LEUTZE, EMANUEL, 1816-68; b. Württemberg. His parents emigrated in his infancy to Philadelphia. A picture which he made of an Indian gazing at the setting sun first attracted attention to his talent, and brought him orders enough to enable him to go abroad for study in 1841. At Düsseldorf he became a pupil of Lessing. His picture of "Columbus Before the Council of Salamanca," painted while in Europe, was purchased by the Düsseldorf art union of New York. In 1843, while in Munich, he completed "Columbus Before the Queen." He resided at Düsseldorf until 1859, when he returned to the United States, and was generally engaged till his death on grand paintings commemorating events in the history of the United States. The following are among the

best known: "The Landing of the Norsemen in America;" "Cromwell and His Daughter;" "The Court of Queen Elizabeth;" "Henry VIII. and Anne Boleyn;" "The Iconoclast;" "Washington Crossing the Delaware;" "Washington at Monmouth;" "News from Lexington;" and "Westward the Star of Empire takes its Way." The latter is of great size, and occupies a panel over one of the grand stairways of the capitol at Washington. He died in Washington.

LËUWENHOECK, ANTOINE VAN, 1632-1723; b. Delft, Holland; was a grinder of optical glasses, and famed for the excellence of his microscopes. Though without the advantages of a liberal education, he was induced to employ his microscopes in histological investigations, and met with great success. He refuted several errors as to physiological conditions, and made some important experiments on the brain and nervous system. He also examined and described the crystalline lens. He contributed many papers to the memoirs of the academy of sciences, and an account of some of his discoveries was published in the *Philosophical Transactions* of the royal society of London, of which he became a fellow in 1680. One of his most important investigations was that by which he discovered in 1690 that the arteries and veins were continuous. He opposed the doctrine of fermentation in the blood, and also made minute examinations of the blood globules, whose form and composition he described, advancing a theory which afterwards formed the basis of that of Boerhaave on inflammation. Queen Mary and the czar Peter the great visited him at Delft, and were charmed with the wonderful sights which they witnessed through his microscopes. His writings were collected in 1695-99, and printed in Latin (Delft, 4 vols. 4to); they were published in Delft and Leyden in Dutch; and an English translation appeared in London a century later (1793-1800). Leuwenhoeck claimed the first discovery of the spermatic animalcules in 1677.

LEVEL AND LEVELING (*ante*). Custom has established the measurement of absolute levels from the average surface of the ocean—the mean between high and low water—as the zero level; when reckoned from any other zero level, they are relative levels. Leveling, or finding the difference between the levels of two or more points, is designated by the term hypsometry in geodesy. There are three principal and independent methods of leveling. The first depends upon the fact that the surfaces of fluids at rest are perpendicular to the direction of the force of gravity; upon this is based the common level. In the second method, trigonometrical leveling, we must know, first, the zenith distance, or the angle between the zenith of the station and the object whose height we wish to find (making a correction for the effect of refraction), and, second, the horizontal distance from the station to the object, determined usually by triangulation. In accurate work a careful adjustment of the theodolite, the instrument used in this method, is necessary. Local attraction sometimes causes a deflection of the plumb-line, thus affecting measurements of zenith distance. Atmospheric refraction is a more important element of uncertainty, for which reason the horizontal distance should not exceed 12 or 15 miles. The coefficient of refraction is irregular, and varies with the temperature and pressure of the atmosphere; it is most steady and nearest its minimum between 10 A.M. and 2 P.M. From the above data, the difference in level is easily calculated. The weight of the atmosphere bearing upon a unit of surface diminishes in a geometrical progression as the heights increase in an arithmetical progression; therefore, by the third method, heights are determined with the barometer. Physicists have constructed numerous formulæ embodying the law of Mariotte, and introducing corrections for temperature, expansion of the air, and the effect of latitude and height upon the action of gravity. It is believed that considerable accuracy can be attained by this method, particularly if the annual means of temperature and pressure for the stations whose difference in level it is desired to find are substituted in the formula. Aneroid barometers have been graduated to indicate heights up to 12,000 or 16,000 ft.; they give only approximate results. If a delicate apparatus for determining the boiling-point of water be used, the corresponding heights taken from a table will give the reading of the barometer at that point, so that the instrument itself can be dispensed with. This depends upon the fact that the boiling-point of water decreases as the pressure of the atmosphere becomes less.

LEVELERS, a party which arose in the army of the long parliament, when it overawed that body, and sent the king to Hampton Court in 1647. They determined to level all ranks and establish an equality of titles and estates throughout the kingdom. Several of the officers belonging to this party were cashiered in 1649, and on the departure of Cromwell for Ireland, at the close of that year, they raised mutinies in various quarters, and were put down by Fairfax with bloodshed. John Lilburn, one of the chiefs of the faction—of whom it was said that, if none but he were left alive in the world, John would quarrel with Lilburn—published in 1649 his *Manifestations from J. Lilburn and others, styled Levelers*. They were not only treated as traitors by the king, but persecuted by Cromwell as dangerous to the state. One of their own works, *The Leveler, or the Principles and Maxims concerning Government and Religion of those commonly called Levelers*, shows that in politics their fundamental principles included: 1. The impartial authority of the law; 2. The legislative power of parliament; 3. Absolute equality before the law; 4. The arming of the people for securing the enforcement of the laws, and the protection of their liberties. In religion they claimed: 1. Absolute

liberty of conscience; 2. Freedom for every one to act according to his knowledge, even if this knowledge should be false; 3. Religion to be considered in two aspects—one as the correct understanding of revelation, which is a private affair, the other as its effects manifested in actions, which are subject to the authorities; 4. They condemned all strife on matters of faith and forms of worship. This sect disappeared at the time of the restoration

LÉVÊQUE, JEAN CHARLES, b. Bordeaux, France, 1818. He made careful study of the Greek and Alexandrian philosophers, and resided at Athens 1847-48. In 1856 he was appointed professor in philosophy at the college de France; in 1865 a member and in 1873 a vice-president of the academy of moral and political sciences. His writings are remarkable for erudition, and his work *La Science du Beau* received several prizes from French academies.

LEVERETT, FREDERICK PERCIVAL, 1803-36; b. at Portsmouth, N. H.; graduated at Harvard in 1821, and was subsequently principal of the Boston Latin school. He was the author of a Latin lexicon and various Latin classics. Died in Boston.

LEVERETT, Sir JOHN, Bart., 1616-79; b. in England, and came to America with his father in 1633. He was an intimate friend of Cromwell and an officer in his army. In Massachusetts he was speaker of the general court, 1665-71; maj.gen., 1663-73; and deputy governor, 1671-73. He was knighted and made a baronet by Charles II. in 1676.

LEVERETT, JOHN, 1662-1724; b. Boston; grandson of sir John; graduated at Harvard in 1680, and president of the college 1707-24. He was a lawyer and judge, and at one time speaker of the general court, and highly esteemed for his learning.

LE VERT, OCTAVIA WALTON, 1810-77; b. near Augusta, Ga. Her grandfather, George Walton, was a signer of the declaration of independence, and her father, who bore the same name, was territorial secretary, and for a time acting governor of the territory of Florida. His daughter was with him at Pensacola, where she received her education, and where as a young lady she was a great favorite in society. She was invited to select a name for the capital of Florida, and chose the Indian name Tallahassee. Her father, at the close of his official term, removed to Mobile, where in 1836 she was married to Dr. H. S. Le Vert. Before this, however, she passed one or two winters in Washington, where she enjoyed the friendship of Webster, Clay, Calhoun, and other eminent men of that time, and won distinction by the accuracy of her reports of certain debates in congress. After 1853 she spent two years in Europe, and was received into the best society in England and on the continent. She subsequently gave an account of her observations in 2 vols. entitled *Souvenirs of Travel*. She did much to promote the objects of the Mount Vernon association, and for the comfort of the confederate soldiers during the war of the rebellion. It is understood that she left in manuscript *Souvenirs of Distinguished People* and *Souvenirs of the War*, but they have not been published. Died in New York.

LEVI, LEONE, PH.D., b. Ancona, Italy, of Jewish parentage. In 1844 he removed to Liverpool, where he was naturalized as a British citizen. He was one of the founders of the Liverpool chamber of commerce in 1849, and in 1852 was appointed professor of commercial law in university college, London. In 1859 he became a barrister, and in 1861 received the doctorate from Tübingen. He has published many valuable papers upon statistical and commercial affairs, and is author of *Commercial Law* (4 vols.), *On Taxation*, and *International and Commercial Law*.

LEVIGATION, a process of the laboratory for converting different substances to a smooth, uniform powder by grinding them between two flat surfaces. The same process essentially is used in grinding paints, printing-inks, and drugs.

LEVIRATE MARRIAGE (Lat. *levir*, a husband's brother) is the marriage of a man to the widow of his deceased brother. This was an ancient usage of the Hebrews when an Israelite died without male issue, and his widow could compel his next older brother to marry her. This law was afterwards enacted in the Mosaic code, though definite limits were prescribed for it, and some of the irksome and odious features which it had in ancient times were removed. This law was not peculiar to the Hebrews, but prevailed among the Moabites, Persians, and inhabitants of India, and still exists in Arabia, Abyssinia, and other nations.

LEVIS, a co. in central Quebec, Canada, having the St. Lawrence river for its n. and n.w. boundary, and on the n.e. the straits that separate it from the isle of Orleans; about 256 sq.m.; pop. '71, 24,831. It is drained by the Chaudiere and Etchemin rivers, intersecting it centrally. It contains the town of Levis, in the n., opposite the city of Quebec, and communicating with it by a ferry, being a port of entry, and the landing-place for passengers by European steamers. It is intersected by the Grand Trunk railway and the Levis and Kennebec railway. Its surface is varied by the picturesque islands which interrupt its river courses, and their precipitous and densely wooded banks. It contains several towns of considerable commercial activity, where capital is employed in saw and grist mills, axe factories, tanneries, and an extensive lumber trade. Seat of justice, Levis.

LEVIS, or POINT LÉVI, a t. in central Quebec, Canada, opposite the city of Quebec, on the river St. Lawrence, 172 m. n.e. of Montreal, on the s. shore of the river; pop. 6,691. It contains the wharves where passengers from the ocean steamships are landed, and is protected by substantial fortifications. It is connected by a ferry with the city of Quebec, a mile distant, and is about 4 m. from the isle of Orleans, a large island dividing the river St. Lawrence at that point. It is engaged in a brisk trade, has several saw-mills and factories, a good hotel, a convent, a board of trade, and 2 telegraph offices.

LEVITICUS (*ante*), the name taken from the Septuagint of the third book of Moses, and signifying "belonging to Levi," well represents its contents, which are precepts and ordinances for the government of the priests, Levites, and people in their special relations to God. The Hebrew title, which is simply the first word of the book, "And he called," also points it out as a collection of divine commands. These commandments, as recorded in this book, have reference to sin as committed by men; to the sacrifices which the people should bring as an atonement; and to the priests who should offer them in the people's name. The first great fact to be perceived, in order to a right understanding of the book, is that it exhibits divinely appointed emblems of divine realities. All that it records, the tabernacle, the priest, the altar, the sacrifice, the incense, are emblems employed by him who gave signs to his servants, the prophets, and in his own teachings used similitudes. This being kept in mind, the book may be regarded as presenting three principal topics: I. THE PRIESTS.—They were at once the representatives of the people in their relations to God, and of God in his relations to them. Every man in the nation was vitally interested in the duties and burdens of the office, and might justly have been required to bear his portion of them; and in regard also to its honors, all the people were a kingdom of priests. At the beginning of their history the first-born sons of all the families, in all the tribes, were to be consecrated to the Lord as representatives of the whole. Afterwards, as an equivalent for them, the tribe of Levi was set apart to the service. Of these the sons of Aaron were to be priests, and Aaron was to be the high-priest. The whole tribe was considered as performing one service, the magnitude and importance of which were represented both by the great number consecrated and employed and by the dignity of the high-priest. All the service performed by them all was crowned with his work, and the splendor vested in him irradiated them all. The high-priest was anointed with holy oil, compounded of the most precious materials and devoted strictly to that use alone. By this, poured on him and running down to the skirts of his garments, he was consecrated to the Lord. He was clothed sometimes in splendid robes composed of blue, purple, scarlet, fine linen, and gold, elaborately wrought together, with a breast-plate of precious stones, and a miter on which blazed the inscription, formed of dazzling gems, "Holiness to the Lord." This represented the majesty of God. At other times he was required to minister in plain linen garments, which were emblematic of the humility appropriate for men in their approaches to God. Bodily perfection and personal purification were required in the priesthood as emblems of the holiness necessary for all men in approaching to God. The priestly office was, according to divine command, to be transmitted from father to son, and the oldest son of the high-priest was to be his successor. By this arrangement, while the individual priest could not continue by reason of death, the office was made perpetual. II. THE SACRIFICES.—1. Sacrifices for the priests themselves were to be offered before they could officiate for the people. These were required specially at their consecration, and generally before they made atonement for the people. Thus their own sinfulness was acknowledged and atoned for separately, in order that, although compassed with infirmities, they might be accounted worthy to stand emblematically between God and the people. 2. No sacrifice could be accepted unless accompanied with the shedding of blood. That represented *the life*, and therefore the blood of animals was consecrated as an emblem of atonement for sin, and was to be applied to all things connected with the offering of worship. 3. The animals offered were to be taken from those most valued, and must be without imperfection or blemish. And to their life many other choice things were to be added—such as fine flour, pure oil, and frankincense—in order to increase the costliness and therefore the emblematic significance of the offering. 4. The sacrifices were to be numerous and perpetual. Every man was required to present offerings for himself whenever he sinned against God, or trespassed against his fellow-men; and for sins of ignorance, as well as for willful transgressions. After the settlement in Canaan, wherever a man lived, he was required to present his offering at the tabernacle or temple. These personal sacrifices were burdensome, and would frequently recur. Besides these, a general daily morning and evening sacrifice was ordained; and on the Sabbath days this was doubled. On feast days, additional offerings were prescribed. One day in every year was consecrated with special solemnity as a day of atonement, in which all the people were required to abstain from servile labor, and to afflict their souls, under penalty of being cut off from the congregation. On that day the high-priest alone of all the priests and people, and he on that day only in all the year, was to enter the most holy place, taking with him blood, which he must sprinkle seven times before the mercy-seat. On that day the sin-offering consisted of two animals, one of which was sacrificed on the altar, while on the

head of the other the high-priest laid both his hands, and confessed over it all the iniquities of the people and all their transgressions, putting them on its head, and sending it away into the wilderness. These solemn rites may be regarded as the closing sacrifice of the year, binding all together as one great offering, crowning them and imparting to them the highest measure of emblematic significance. All these were appointed to be repeated year by year, through all generations, until the ordained end. III. THE SINS OF THE PEOPLE.—1. Their punishment. There were flagrant crimes for which no sacrifice would avail. He who committed them was to be cut off from his people. There were also sins against the sacrifice itself for which, in the nature of the case, no atonement could be made. National judgments were threatened against the general violation of the law by the people at large. For first offenses, disease, famine, and war, in lighter measures, were denounced. If, notwithstanding these visitations, the people persisted in their offenses, sevenfold judgments would be sent. God would break the pride of power and make the heavens as iron and the land as brass. If then they refused to obey, wild beasts would be sent to destroy their children and cattle. If they were not reformed by these inflictions, the horrors of siege and of pestilence would be superadded. If still they were not subdued, their sanctuaries would be desolated, their cities laid waste, their land destroyed, and they themselves scattered among the nations. By these threatened judgments the evil nature of sin was powerfully pressed on their consciences and thoughts. 2. It was also emblematically set forth in the daily actions and circumstances of their lives. Of these, two may be specified: (1.) The distinction made between clean and unclean meat. All animals were divided into these two classes; the former of which only might be eaten, while the latter were to be an abomination in the sight of the people. While there may have been several reasons for this regulation, one object of it was to hold up the moral distinction between good and evil, holiness and sin, by reminding the people continually that in partaking of food they might do right or do wrong; and if in this constantly recurring act, so in all other actions of their lives. (2.) The disease of leprosy was an emblem of the awful nature and consequences of sin. As the disease was seated in the body, so sin is in the soul; as the disease might be transmitted by hereditary descent, so the sinfulness of mankind is continued from age to age; as leprosy was often manifested at first only by a single spot which spread over the body, so sinfulness of heart, often betraying itself at first only by slight outward transgressions, may increase in power until the whole character is defiled. Leprosy sometimes entered into a garment or a house; then the garment must be burned, and the house destroyed. So, by the sinfulness of men, a land being defiled, may be doomed to destruction, as Sodom and Gomorrah were destroyed. Yet as to Israel, their land was not to be forever desolate, nor were they to be utterly and finally cast off.

LEVULOSE, a variety of glucose, differing from ordinary glucose or dextrose by the property of turning the plane of polarization of light to the left (whence its name) instead of to the right, as in dextrose. A mixture of these two sugars constitutes *fruit sugar* or, as sometimes called, *invert sugar*, which also possesses left-hand rotation, because of the excess of left-handed power of the levulose constituent. Cane sugar may be inverted or transformed into a mixture of dextrose and levulose by warming it with dilute acids, or by the addition of yeast or diastase. To separate the levulose the fruit sugar is mixed with slaked lime and water. A solid compound of levulose and calcium is formed, the dextrose remaining in solution, allowing the precipitate to be removed, which, when suspended in water, may be decomposed by carbolic acid gas, by which means pure levulose is separated, carbonate of lime being formed as an insoluble precipitate. The solution containing the levulose may be concentrated by evaporation. Levulose is formed also by the action of dilute acids on inulin. It is a colorless, uncrystallizable syrup, having the sweetness of cane sugar, and exhibiting most of the reactions of dextrose, but is more soluble in alcohol. Its rotatory power at ordinary temperatures is much greater than that of dextrose, but diminishes as the temperature rises, while the rotatory power of dextrose is the same at all temperatures. See GLUCOSE.

LEVY, in law, the seizure of real or personal property by a sheriff in order to satisfy an execution against it. Real estate may be levied upon by setting forth by metes and bounds the portion seized; personal property must be brought into the actual possession or under the power of the sheriff.

LÉVY, a co. in w. Florida, on the gulf of Mexico, bounded n.w. by the Suwanee river; about 1000 sq. m.; pop. '80, 5,767—5,631 of American birth, 2,035 colored. Its southern portion is drained by the Withlacoochee river, forming its southern boundary and emptying into the gulf of Mexico. Its surface is generally level, consisting of extensive swamps and large tracts of tillable lands covered with pine and cedar forests, and bearing the name of the *Gulf Hummock*. The portion under cultivation has a sandy soil, and among its staple products are oats, corn, tobacco, cotton, wool, sweet potatoes, and sugar-cane. In 1870 it had 5 manufacturing establishments, employing 45 hands, with a capital of \$12,000 and an annual product of \$58,000. It has grist-mills, and mills for the manufacture of pine lumber, cedar pencils, and cotton-gins. It is traversed by the Florida railroad, having a terminus at Cedar Keys, and its coast is indented by Wacassassee bay and Cedar Key bay. Seat of justice, Bronson.

LÉVY, ÉMILE, b. France, 1826; pupil of the *ecole de beaux arts* of Paris, in which he obtained the grand Roman prize in 1854. His painting of "Noah cursing Canaan," exhibited at the Paris exposition in 1855, was purchased by the government. Levy's most notable works since are "Répas de Martyrs," "Ruth et Naëmi," "la Rentré des foin," "Vercingétorix se rendant au César," "la Messe au Champs," "Venus ceignant sa ceinture," "Diane la Mort d'Orphée," "l'Arc-en-ciel," "l'Hésitation," "le Christ au tombeau." In 1867 M. Levy received the medal of the exposition and the cross of the legion d' honneur.

LEWIN, THOMAS, b. at Ifield, Sussex, England; educated at Trinity college, Oxford; admitted to the bar in 1833, and in 1853 became conveyancing counsel to the court of chancery. He wrote a treatise on *The Law of Trusts*, but most of his works are of a religious character. Among them are *The Life and Epistles of St. Paul*; an *Essay on the Chronology of the New Testament*; *Jerusalem, a Sketch of the City and Temple from the Earliest Times to the Siege by Titus*; *Siege of Jerusalem by Titus*; and *Fasti Sacra, or a Key to the Chronology of the New Testament*. His work on *Cæsar's Invasion of Britain*, in which he questioned the correctness of the current belief as to the landing-place of that conqueror, involved him in a controversy with Dr. Airy, the astronomer royal, and led to new investigations. After the publication of his work on St. Paul, he devoted many years to a study of the apostle's missionary journeys, visiting in person nearly every place named in the accounts given in the New Testament of his journeyings. The results of these later researches are embodied in a second edition of his previous work, in two large volumes, profusely illustrated. His views as to the sacred localities of Jerusalem, especially in respect to the site of the temple, which differ from those of Robinson and others and have led to much controversy, have not been generally accepted.

LEWIS, a co. in n.e. Kentucky, having the Ohio river for its n. boundary, separating it from the state of Ohio, and the North fork of the Licking river for its s.w. boundary; drained by the branches of the Ohio, flowing from all portions of the county; about 430 sq.m.; pop. '80, 13,154—12,984 of American birth, 229 colored. It is largely covered with forests on a hilly surface with a limestone formation. Its soil is fertile along the water-courses, and is adapted to the raising of live stock, every variety of grain, fruit, dairy products, tobacco, wool, sweet potatoes, wine, and honey; other products are maple sugar, flax, and hops. Its capital is represented by tanneries, currying establishments, lumber, flour and saw mills, boat-yards, and manufactories of hubs and spokes. It had, in '70, 25 manufacturing establishments, employing 93 hands, with a capital of \$71,150, and an annual product of \$273,631. Seat of justice, Vanceburg.

LEWIS, a co. in n.e. Missouri, having the Mississippi river for its e. boundary, separating it from Illinois; 500 sq.m.; pop. '80, 15,925—15,080 of American birth, 1405 colored. It is drained by the Wyaconda river, flowing s.e., and the North and Middle branches of the Fabius river, flowing from n.w. to s.e. across the county, emptying into the Fabius and thence into the Mississippi. It is intersected by a branch of the Quincy, Missouri and Pacific railroad, from Quincy to Kirksville, in the s.w. section; and the St. Louis, Keokuk and Northwestern railroad, following the course of the Mississippi river. Its surface is well timbered and undulating. Its soil is a deep rich loam, fertile to a remarkable degree, and adapted to the raising of live stock, fruit, every variety of grain, tobacco, wool, sweet potatoes, and sorghum. Value of all live stock in '70, \$1,006,610. Cash value of farms in '70, \$5,239,259. It produced in '70, 1206 galls. of wine, and 16,707 lbs. of honey. Lumber of farms in '70, 1541. It had in '70, 165 manufacturing establishments, employing 497 hands, with a capital of \$196,570, and an annual product of \$677,943. Its leading industries are in the manufacture of lumber, carriages, cooperage, saddlery and harness, tin, copper, and sheet-iron ware, and snuff. It has flour and saw mills and tobacco factories. Coal is found and limestone in great abundance.

LEWIS, a co. in n. New York, intersected by the Black river and its branches, among them the Beaver river, rising in a small lake on its eastern border, the Moose, and the Oswegatchie; 1280 sq.m.; pop. '80, 31,356. Its surface is hilly, rising in some portions to the height of 1400 ft., and in the w., that being the most productive region, to an elevation of 1500 and 1700 feet. It is well wooded with groves of sugar-maple and hard-wood trees, particularly in the eastern portion. It has excellent pasturage, and its soil along the river bed, having a sub-stratum of limestone, is very fertile, and adapted to the raising of live stock, every variety of grain, tobacco, wool, maple sugar, flax, and hops. Value of life stock in '70, \$2,635,706. It produced in '70, 2,080,259 lbs. of butter and 7,331 lbs. of honey. It had in '70, 336 manufacturing establishments, employing 1487 hands, with a capital of \$2,110,325 and an annual product of \$3,573,600. Its leading industries are lumber, leather, cooperage, carriages, paper and wooden wares, woolen goods, pig iron, and tin, copper, and sheet-iron ware. Seat of justice, Lowville.

LEWIS, a co. in central Tennessee, having the Buffalo creek for its s. boundary, and the Duck river crossing its extreme n.e. corner; about 350 sq.m.; pop. '70, 1986—1985 of American birth, 188 colored. Its surface is diversified, sparsely settled, and is

divided into hill, valley, and woodland, the latter predominating. Live stock is produced, peanuts, and every variety of grain. Seat of justice, Newburg.

LEWIS, a co. in s.w. Washington territory, drained by the Cowlitz river, flowing w. and s.w., having the Chehalis river for its n.e. boundary, running n.w. and emptying into the Pacific; and part of the Cascade range of mountains for its e. border; 1700 sq.m.; pop. '70, 888—779 of American birth. It is thinly populated, and its surface is extensively covered with timber. The soil of its valleys is very fertile, and adapted to the raising of live stock, wool, dairy products, and every variety of grain. Its rivers are navigable, and it is intersected by a branch of the Northern Pacific railroad, which crosses it centrally, running from Olympia in a northern county to Kalama in the county directly s. of it. Its water-power is utilized by flour and lumber mills. Seat of justice, Claquato.

LEWIS, a co. in n. West Virginia, intersected centrally by the West fork of the Monongahela river running northward; drained also by the Little Kanawha river; about 475 sq.m.; pop. '80, 13,270—12,806 of American birth, 326 colored. It presents an uneven surface, alternate hill and valley, tillable lands, and extensive forests. It contains beds of iron and bituminous coal easily mined. Its soil is adapted to the raising of live stock, fruit, buckwheat, oats, corn, rye, wheat, tobacco, wool, sweet potatoes, and dairy products; also maple sugar, sorghum, and flax. It has woolen factories, and saw and planing mills. Cash value of farms in '70, \$2,417,175, numbering 1004. Seat of justice, Weston.

LEWIS, or LEWISSON, a device for securing heavy blocks of stone to the tackle for hoisting. It is supposed to be named from Louis XIV. of France, but there is evidence that it was used long before his time. In the stone is a quadrangular cavity, widened at the bottom on two opposite sides as in dovetailing. Into this cavity are thrust two wedge-shaped pieces of iron, heads downward, and then a third piece, perfectly straight, is inserted between them to hold them in place. The ends projecting above the stone present each an eye for a bolt, which passes through the whole and forms a handle for lifting the stone. After the stone is raised to its place, the bolt is first taken out; then the center-piece, which has held the wedge-shaped outer pieces firmly in place, is withdrawn, setting the latter free.

LEWIS, ANDREW, 1730—80; b. in Ulster co., Ireland; while an infant was brought by his father to Bellefonte, Augusta co., Va. In the old French war he was a volunteer in the Ohio campaign in 1754, a maj. in Braddock's expedition, and present at the great defeat on the Monongahela in 1755. He commanded the Sandy Creek expedition in 1756, and in 1758 was taken prisoner by the French and carried to Montreal. Ten years later he served as commissioner of Virginia in the treaty made with the Iroquois at fort Stanwix. In 1774 he was raised to the rank of brig.gen., and in the same year commanded the Virginia troops in the victory over the Shawnee confederacy at the mouth of the Kanawha river. He was a member for several years of the Virginia house of burgesses, and in 1776, at the request of Washington, was appointed by congress a brig.gen., and took part in the military operations against lord Dunmore. Ill health compelled him to resign his commission in 1777, and he died in Bedford co., Va. He was very highly esteemed by Washington, and his statue occupies one of the pedestals around the Washington monument at Richmond. He had four brothers, Samuel, Thomas, William, and Charles, scarcely less prominent than himself in the annals of Virginia.

LEWIS, CHARLES, b. Va. and killed at the battle of Point Pleasant, Oct. 10, 1774. Under his brother Andrew he served with distinction and became a col.

LEWIS, DR., b. N. Y., 1823; studied at the Harvard medical school in Boston, and practiced for a time successively at Port Byron and Buffalo, N. Y. At the latter place he published a monthly periodical, in which he advanced the idea that diet and exercise should take the place of drugs in the treatment of disease. As a means of preserving health and removing disease he introduced the system of light gymnastics for the use of schools and private classes, and in 1863 founded in Boston a school for training teachers of this system. Afterwards he established at Lexington, Mass., a seminary for young ladies, in which he sought to carry out his ideas of diet, air, and exercise. The building used for this school was destroyed by fire in 1868, and Dr. Lewis thereupon engaged in medical practice in Boston. He established in that city the Turkish bath, which he regards as a powerful sanitary agent. His principal publications are: *The New Gymnastics*; *Weak Lungs and How to Make Them Strong*; *Talks about People's Stomachs*; *Our Girls*, and *Chats with Young Women*.

LEWIS, ELLIS, LL.D., 1793—1871; b. Penn.; learned the trade of a printer in his youth, and in 1822 was admitted to the bar. In 1824 he was deputy attorney-general of Pennsylvania, attorney-general in 1832, and subsequently a judge in several courts. In 1854 he was elected chief-justice of the supreme court, and re-elected in 1857. He was distinguished for his skill in medical jurisprudence, which won for him the degree of M.D. In 1858 he was appointed a commissioner to revise the criminal code of the state. He wrote *Abridgment of the Criminal Law of the United States*. Died in Philadelphia.

LEWIS, ESTELLE ANNA BLANCHE, b. near Baltimore, 1824; educated at Miss Willard's seminary in Troy, N. Y.; married in 1841 Sidney Lewis of Brooklyn, N. Y., who is now deceased. She has lived most of the time in Europe since the death of her husband. Among her publications are: *The Record of the Heart*; *The Child of the Sea*; *The Myths of the Minstrel*; and *Helenah* (a tragedy). A collection of her poems was published in this country in 1858, and in England in 1866. Since that time she has published *Sappho of Lesbos*; *The King's Stratagem* (both tragedies); and letters from Europe signed *Stella*.

LEWIS, FRANCIS, 1713-1803; b. Llandaff, Wales, and educated at Westminster. He came to America, settling in New York, where he was a merchant. In 1757 he was on the staff of gen. Mercer in the old French war, and being taken prisoner at Oswego was sent to France. England, in consideration of his services, gave him 5,000 acres of land. He was one of the signers of the declaration of independence, and, 1775-79, a member of congress. He and his wife were imprisoned by the enemy for a long time, and the greater portion of his estate was sacrificed. Died in New York.

LEWIS, JOHN FREDERICK, b. London, 1805; became known at first by a series of studies from wild animals which were engraved by himself, and next by sketches of manners in Spain, published in 2 vols. in 1833-34. He resided most of the time in Italy 1838-51, but made visits to Greece, Turkey, and Egypt. In 1853 he exhibited copies in water-colors of more than 60 of the most famous pictures of the Venetian and Spanish schools. These were purchased by the Scottish academy. He was president of the society of water-colors, 1855-58; in 1859 he was elected an associate, and in 1865 a member, of the royal academy.

LEWIS, MATTHEW GREGORY, 1775-1818; often called monk Lewis; b. London; educated at Christchurch, Oxford; visited Germany for the purpose of acquiring the language of that country, and by the perusal of the drama and the wild fictions of the Germans, imbibed a taste for the mysterious and tragic. In 1795 he produced his novel the *Monk*, a work full of scenes of blood, cruelty, and impurity. It became very popular, but its licentiousness was so revolting that he was threatened with prosecution, to avert which he agreed to recall the printed copies, and remove the objectionable parts in future editions. He obtained a seat in parliament. In 1796 appeared *Village Virtues, a drama*; in 1797 his *Castle Specter*, which was acted 60 nights. In 1798 he visited Edinburgh, and had an interview with sir Walter Scott, who contributed several fine ballads to the *Tales of Wonder*, published by Lewis in 1801. The death of his father brought him a large fortune consisting of an estate and slaves in the West Indies, which he visited in 1815-16. On his homeward voyage the second time he died of fever. His novels and plays are all characterized by an extravagant taste for deeds of horror and mystery. His poetry, consisting chiefly of songs and ballads, though pronounced deficient in passion and imagery, has a finished and musical flow of versification, and by sir Walter Scott was warmly commended. His best known poems are *Alonzo the Brave*; *Durandarte*; *The Fair Imogene*. His novel *The Bravo of Venice* and his drama *Timour the Tartar* were popular. His best prose work is his *West Indian Journal*, written during his first voyage, published in 1833; and his *Life and Correspondence*, in 1839, shows him to have been a kind and benevolent man.

LEWIS, MERIWETHER, 1774-1809; b. near Charlottesville, Va.; a volunteer at the time of the whisky insurrection of 1794, an ensign in the regular army in 1795, and a capt. in 1800. Shortly afterwards he became Jefferson's private secretary. In 1803-6 he was engaged with capt. William Clarke in an expedition to the Pacific ocean, whose results were important to geographical science; and in 1807 he was made governor of the territory of Louisiana. He was subject to periods of mental depression, in one of which he took his own life near Nashville, Tenn. His memoir by Jefferson was published, together with Biddle and Allen's *Narrative of the Lewis and Clarke Expedition*, in 1814.

LEWIS, MORGAN, 1754-1844; b. New York city; graduated at Princeton in 1773, and studied law in the office of John Jay. He joined Washington's army at Cambridge in June, 1775, and was successively made capt., maj., col., and chief of staff to gen. Gates. He was in the battle of Saratoga, and in Clinton's campaign against sir John Johnson in the Mohawk valley. After the war he was admitted to the bar in Dutchess co., was appointed judge of the court of common pleas, elected attorney-general in 1791, made judge of the supreme court in 1792, and chief-justice in 1801. He was governor of the state 1805-6, a member of the legislature 1808-11, quartermaster-gen. with the rank of brig. gen. in 1812, maj. gen. in 1813, in which year he was engaged in the operations on the Niagara frontier, and in 1814 had command of the defenses of New York city. He delivered an address before the city authorities on the centenary anniversary of Washington's birth, Feb. 22, 1832, and was subsequently elected president of the New York historical society. Died in New York.

LEWIS, TAYLER, LL.D., 1802-77; b. Northumberland, Saratoga co., N. Y.; graduated at Union college in 1820. He studied law in Albany and entered into practice at Fort Miller; but finding the profession distasteful, relinquished it to devote himself to classical studies. He was appointed professor of Greek at the university of New York in 1838, and at Union college in 1849. He was a stout defender of evangelical theology

against all its assailants, and especially against the theories and alleged discoveries of modern scientists. He was master of a most clear and vigorous English style, and full of learning and logical power. His mind was of great breadth and originality, and with that felicitous tendency to mysticism which, when restrained, gives depth and grandeur to explorations after truth. He wrote *The Six Days of Creation; The Bible and Science; The Divine Human in the Scriptures*; and, together with E. W. Blyden and Theodore Dwight, *The People of Africa, their Character, Condition, and Future Prospects*. He was a copious contributor upon his favorite themes to the periodical literature of his time. Died at Schenectady.

LEWIS, THOMAS, 1718-90; b. Ireland; was a member of the Virginia house of burgesses, and actively favored the rights of the colonies. In the session of 1765 he advocated the resolutions of Patrick Henry, was a member of the conventions of 1775-76, and of the state convention which ratified the federal constitution.

LEWIS, WILLIAM, 1724-1811; b. Ireland; one of four brothers prominent in the revolutionary history of Virginia. Under his brother Andrew, the most distinguished of the four, he was engaged in the French and Indian wars. He became a colonel.

LEWIS, WINSLOW, 1799-1875; b. Boston; graduated at Harvard university in 1819; continued his medical studies under Dupuytren at Paris and Abernethy at London. On his return to Boston he succeeded Dr. John C. Warren as consulting physician to the Massachusetts general hospital. In 1861 he was city physician of Boston. He took an interest in public affairs, and was several times chosen to the state legislature.

LEWIS AND CLARKE, a w. central co. of Montana; 2,819 sq.m.; pop. '80, 6,521; has the Missouri river on the e. and the Sun or Medicine river on the north. Within this co. is a part of the Rocky mountain chain, and the surface is generally mountainous, though there are productive valleys. There are gold mines, and the forests yield largely of fir and pine. The Utah and Northern railroad, now constructed to Red Rock, Montana, will probably penetrate this county. Co. seat, Helena.

LEWISBURG, a borough in e. Pennsylvania, on the w. branch of the Susquehanna; pop. '78, 3,121. It is situated on the w. bank of the river, which is here spanned by a bridge, and has a delightful environment, its site being where the Buffalo creek empties into the Susquehanna. It is the terminus of the Lewisburg and Tyrone railroad, in Union co., 63 m. n. of Harrisburg, 14 m. w. of Danville, and $1\frac{1}{2}$ m. from Montandon, connecting at that point with the Philadelphia and Erie railroad. It contains Lewisburg university, a Baptist institution organized in 1847, and the University institute for women. It has a town-hall, 2 weekly newspapers, 2 national banks, and 8 churches. It has manufactories of woolen goods, flour, lumber, and agricultural implements, and 2 foundries. It is the center and shipping point for a large trade in the productions of the neighboring country, which are principally grain and market produce.

LEWISTON (*ante*), a t. in s.w. Maine, 30 m. s.w. of Augusta, incorporated 1795; city charter granted, 1861; city government organized, 1863; the terminus of the branch railroad from Crowley's junction to Lewiston, and is on the Maine Central railroad, connecting with the Grand Trunk and the Boston and Maine by way of Auburn and Danville; pop. '80, 19,083. It is in the co. of Androscoggin, and is a manufacturing town of importance. It is connected with the w. bank of the river by four bridges, two of which are of iron for the use of the railroads, and its prosperity, in manufactures and trade, has given it the rank and consequence of the second city of Maine. It contains Bates college, a Free-will Baptist institution organized in 1863, named in honor of Benjamin E. Bates of Boston, who gave it \$200,000; a theological school connected with the college, organized 1870; and the Nichols Latin school, named from Lyman Nichols of Boston, connected with the same institution. It has a public library of more than 6,000 volumes, 13 churches, 3 newspapers, including the *Lewiston Evening Journal*, and a monthly magazine, published by the college students, a fine building for city offices, an elegant city hall, excellent public schools, with substantial edifices, a soldiers' monument in the park, and gas-works. It has 2 national banks, one with a capital of \$400,000, and 3 savings banks. The construction of the dam cost \$1,000,000, the water-power, including the canal, 60 ft. wide, being owned by the Franklin company, incorporated in 1854. It has 18 manufacturing corporations, employing 8,500 hands, with a capital of \$9,000,000, and an annual product of \$11,000,000. Number of yards of cotton and woolen goods manufactured annually, 40,000,000. Number of spindles, 285,000; other industries are the manufacture of cotton and woolen machinery for factories, brushes, boots and shoes, files, trunks, ticking, burlaps, jute bags, and duck. Its bleaching and dye-works are managed with a capital of \$300,000, employing 280 hands. It has many attractions for the tourist in its fine natural scenery.

LEWISTON, a t. in n.w. New York, on the New York Central and Hudson River railroad; the terminus of the Buffalo to Lewiston branch of that railroad, and also of the Oswego to Lewiston branch of the Rome, Watertown and Ogdensburg railroad; pop. '70, 2,829. It is in Niagara co., on Niagara river, 7 m. s. of the falls, the river descending 104 ft. in that distance. It was burned by the British in 1815, and is opposite Queenston, the scene of the battle of Oct. 13, 1812, at which gen. Isaac Brock, a British maj.gen., was killed. It has a Roman Catholic theological school, organized in 1856.

and chartered in 1863, called Our Lady of the Angels, and 4 churches. It is situated at the foot of Mountain Ridge, formerly a reservation of the Tuscarora tribe of Indians, who are now numbered among the inhabitants. It is at the head of navigation from lake Ontario, and has a regular daily line of steamers in the summer season to the Canadian city of Toronto.

LEXINGTON, a co. in central South Carolina, having the Congaree river for its e. boundary, the Broad river for its n.e., the North Edisto for its s.w.; intersected in the n. by the Saluda river, emptying into the Congaree at Columbia on its e. border; 750 sq.m.; pop. '80, 18,590—18,553 of American birth, 7,476 colored. It is traversed by the Charlotte, Columbia and Augusta railroad. Its surface is uneven, and is covered with extensive forests of hardwood timber. Its soil is adapted to the raising of live stock, every variety of grain, tobacco, cotton, wool, sorghum, and sugar-cane. It produced in '70, 7,980 lbs. of honey. Its industries are represented by cotton factories, carriage shops, flour and saw mills. Seat of justice, Lexington Court-House.

LEXINGTON (*ante*), a city in n. Kentucky, founded by col. Robert Patterson, in 1775; incorporated in 1782; at the junction of the Cincinnati Southern railway, the Kentucky Central, and the Louisville, Cincinnati and Lexington railway. It is in Fayette co., 29 m. s.e. of Frankfort, 77 m. s. of Cincinnati, and was formerly the capital of the state. It is the seat of Transylvania university, founded in 1798, now absorbed in the Kentucky university, which was chartered in Harrodsburg in 1858, and removed here in 1865. This institution has a library of 20,000 vols., and under its jurisdiction are a law school, an agricultural and mechanical college (embracing the Ashland estate, the home of Henry Clay), and a college of arts and a commercial college. The city has an elegant post-office, a public library of 16,000 vols., 1 state bank, with a capital of \$550,000; 3 national banks, with an aggregate capital of \$900,000; 8 newspapers, including 1 daily, 4 weekly, 2 semi-weekly; and an agricultural monthly magazine. Its leading industries are the manufacture of bagging and carriages; it has also gas-works, distilleries, and rope-walks. Its trade is supplied by the productions of a remarkably fertile country, for which it affords convenient facilities for transportation throughout the state. It has 2 private Roman Catholic schools, 5 seminaries for girls, the Lexington Baptist college for women, St. Catharine's academy (Roman Catholic), Christ church seminary (Episcopal), the Hocker college for women, and the Sayre institution. It has 7 public schools, where white and colored children are educated separately.

LEXINGTON (*ante*) was settled in 1642, and named after a t. in Nottinghamshire, Eng. It is celebrated in American history for having been the scene of the first battle in the revolutionary war, fought April 19, 1775, which aroused the colonies to resistance, precipitating the general conflict. On the night of April 18 the patriots discovered the intention of the British to send a detachment of troops to Concord, for the purpose of destroying some military stores which had been collected there, and also to seize the persons of John Hancock and Samuel Adams, who were residing at the house of the rev. John Clark in Lexington. Information of this design was spread abroad by Paul Revere, who rode from Charlestown to Lexington, warning the farmers along his route. On the same evening, gen. Gage, who commanded in Boston, had picketed the roads in the vicinity, and dispatched lieut.col. Smith, with 800 men, on the expedition to Concord. Revere eluded the pickets, and succeeded in his mission, so that when the advance of the British column reached Lexington it was opposed in the early morning by about 70 militia, who had formed on the town common, under command of capt. John Parker. The British were commanded by maj. Pitcairn, who, on observing the preparations made to resist his progress, halted his men to load, and then advanced them at the double-quick; himself riding in front and ordering the Americans to lay down their arms and retire. As the militia held their ground, maj. Pitcairn fired his pistol at them, and giving the order to his men, the latter discharged their muskets, with the result of killing four and wounding nine of the militia-men. The latter, being outnumbered, retreated, four being killed while flying. A scattering fire from capt. Parker's men wounded three British soldiers and maj. Pitcairn's horse, and, the militia being dispersed, the British force proceeded to Concord to effect the main object of the expedition. The distance is only about 2 m., and the place which became the second battleground of that day was reached at about 7½ o'clock. The country was by this time thoroughly aroused, and as many as 180 militia had assembled, who, as the British came in view, fell back and took position on the side of a hill, afterwards crossing the north bridge by order of col. Barrett, who had assumed command. The British, being left in possession of the town, proceeded to the destruction of such arms and provisions as they could find, a detachment being sent to gain control of the bridges. This body was attacked by the militia, and a brisk fight followed, which resulted in slight losses on both sides. The British, having effected all the damage possible, commenced to retreat, being followed by the Americans, who kept up a galling fire, and annoyed them seriously during their hurried flight. The importance of these two engagements was quite disproportionate to their immediate result in killed and wounded. They fired the souls of the patriots, and impressed them with the sense of their own capacity to contend with the tried regulars of the British army, and may thus be said to have had an influence and effect beyond their merits as warlike achievements.

LEXINGTON (*ante*), a t. in w. Missouri, settled in 1837; terminus of the Lexington to Sedalia branch of the Missouri Pacific railway, and the Kansas City and Eastern railway; the St. Joseph to Lexington branch of the Wabash, St. Louis and Pacific railway has its terminus at North Lexington, across the river. It is the seat of justice of Lafayette co. on the southern bank of the Missouri river, near one of its most abrupt bends. The river being very tortuous it is 84 m. by water to Kansas City, lying directly w. of it, and but 42 m. by rail. It is 55 m. n. of Sedalia, and 40 m. e. of the Kansas line. It is built on a bluff 300 ft. high, and has a court-house and 2 seminaries for girls. Its leading industries are the manufacture of furniture and woolen goods. Hemp is extensively raised in its vicinity, coal is mined, and the trade on the river is brisk. There is a hill at the n.e. of the town where, in Sept., 1861, 2,800 union soldiers, under col. James Mulligan, sustained a prolonged siege against 25,000 soldiers of the confederate army, under gen. Sterling Price, at last surrendering the town and garrison, but on Oct. 16 the union forces, in command of maj. Frank J. White, gained possession of the town. In 1864 it was the scene of a skirmish between the forces of gen. Blunt and gen. Price.

LEXINGTON, a t. in central Virginia, in Rockbridge co., 110 m. w. of Richmond, 32 m. n.w. of Lynchburg; in the fertile valley of the Blue Ridge; pop. '70, 2,873—891 colored. It is situated on the North river, a tributary of the James, having a salubrious climate and delightfully picturesque surroundings. The foot hills in its vicinity contain deposits of sulphur ore, its meadows afford an abundance of nutritious grass, and the soil yields a liberal crop of cereals. Within a convenient distance are a number of sulphur springs, and groves of useful timber and ornamental trees add to the beauty and advantage of the town. It is the terminus of a branch of the James River and Kanawha canal, 20 m. in length. It is the seat of the Washington and Lee university, established by Robert Alexander in Augusta co.; removed in 1785 to this vicinity; named in honor of George Washington in 1796. Having been reorganized in 1865, in 1870 it added the name of Lee, in honor of gen. Robert E. Lee, its president in the years immediately following the close of the rebellion. It includes the Virginia military institute, founded in 1839 as a military and scientific school, having a state annual appropriation of \$15,000; the state appointing 50 cadets annually; its cemetery is the burial place of gen. Stonewall Jackson and gen. Robert E. Lee. It has 7 churches, 3 hotels, 1 bank, 2 newspapers, 1 weekly and 1 semi-monthly, a public library, flour and saw mills, and an iron foundry.

LEX LOCI (*ante*). See CONFLICT OF LAWS; FOREIGN COURTS.

LEX REI SITÆ. See CONFLICT OF LAWS; FOREIGN COURTS; INTERNATIONAL LAW.

LEYDEN, SCHOOL OF, in theology, the name given to certain Dutch theologians who follow the rationalistic professors of the university of Leyden, founded in 1575. The principal advocates of this school are Abram Kuenen, Tiele, and J. H. Scholten, professors in Leyden, and their pupils. Their views are similar to those of the Dutch Tübingen school. Scholten in his younger days was orthodox, and strongly opposed the views of Baur and his associates, but in 1864 came out boldly in defense of them. "Man," the Leyden school teaches, "arrives at a knowledge of the truth by the holy Scriptures; but they must not be understood as containing the only revelation from God. He also reveals himself to the world through the hearts of all believers. The Bible is the source of the original religion. There is a difference between the Scriptures and the word of God. The latter is what God reveals in the human spirit concerning his will and himself. The writing down of the communication is purely human; therefore the Bible cannot be called a revelation. To prove the certainty of the facts of revelation, historical criticism must be called in." But they assert, in applying "historical criticism," that we cannot go further back than the middle of the 8th c. before Christ, or the time of Hosea and Amos; that "all the preceding times are enveloped in hopeless myth. Abraham, Isaac, and Jacob, the founders of Israel, are not persons, but personifications. They are purely ideal figures, for modern historical inquiry teaches us that races are not derived from one progenitor, but many. The development and preservation of Israel—its whole history—were the result of purely national causes." Christianity they regard as "neither superhuman nor supernatural. It is the highest point of the development of human nature itself, and in this sense it is natural and human in the highest acceptance of those terms. It is the mission of science to put man in a condition to comprehend the divine volume presented by Christianity." And what the relation of science to faith is may be learned from Opzoomer, of Utrecht university, who says: "Science is not to appear before the bar of faith, but faith before that of science; for it is not the credibility of knowledge, but of faith, that is to be proved. Science needs no justification. The believer, on the contrary, must justify his faith, and that before the bar of science. Thus, as a matter of course, the final decision and the supreme power rest with science." This writer's arguments against miracles are precisely those of Hume. He says: "We know nothing of the supernatural; to us there is not a single miracle."

LEYS, JEAN AUGUSTE HENRI, 1815–69; b. Antwerp. His artistic studies were pursued at first under the direction of Brakaleer, his brother-in-law, and when he was but 18 years of age he exhibited a picture, "Combat of a Grenadier with a Cossack," which

attracted much attention. After this he studied for a time in France and Holland, and then returned to Antwerp, where he won great distinction. His subjects were taken in part from the history of his own country, and in part from the life of the middle ages, and his work is the result of careful research and high artistic feeling and insight. A grand medal of honor was awarded him for three pictures in the Paris exhibition of 1855. He was similarly honored for work exhibited in the exposition of 1867. In 1846 he was decorated with the order of Leopold, in 1851 raised to the rank of officer, and in 1867 appointed commander of the order and raised to the dignity of officer in the legion of honor. He was also created a baron by Leopold, and chosen a member of the royal academy of Belgium. Died in Antwerp.

LHA-SSA, or H'LISSA. See LASSA.

L'HÔPITAL, or L'HOSPITAL, MICHEL DE, 1504-73; b. at Aigueperse, in the present department of Puy de Dôme; studied jurisprudence at Padua; in 1547 was sent by the French court to the council of Trent in Bologna; in 1554 was made president of the court of accounts, and in 1560 chancellor of France. His ability and integrity were acknowledged by all parties, but he made enemies among extreme Roman Catholics by his moderation, and especially by his successful efforts to secure the freedom of Protestant worship and prevent the establishment of the inquisition in France. In 1568 he resigned the office of chancellor and retired to his estate at Bellebat, in the present department of Seine-et-Oise, where he died. His memoirs, 4 vols., were published in Paris in 1824, and an edition of his poems appeared in 1827.

LIABILITY, LIMITED (*ante*), a limited responsibility of parties to certain contracts. The limit of such responsibility is fixed by statutory provisions. The most common case of limited liability occurs in limited partnerships. Such a partnership is created by written contract; the parties to it are either general or special partners, and a public notice must be given of its creation, of the names of the partners, and of the amount of capital contributed by the special partner or partners; and this capital must be actually paid in. Any deviation from the statutory forms withdraws the partnership from the operation of the statute, and makes each partner liable for the partnership debts to the full amount of his property, as in the ordinary partnership at common law. A joint-stock company "limited" is much the same thing as a limited partnership, and the operation of the statutes in their regard limits the liability of each member to the amount of his share in the company's stock. See JOINT-STOCK COMPANIES (*ante*).

LIBANUS, MOUNT. See LEBANON.

LIBEL (*ante*) is chiefly distinguished, in regard to legal remedy, from slander or spoken defamation by the fact that it may become the subject of criminal proceedings, its capability of indefinite repetition making it more dangerous and more likely to result in a breach of the peace than the former. With every sale of a book or paper containing libelous matter, the offense is renewed. If a libel appear in a newspaper or magazine, both editor and publisher are liable, even though the libelous article be accompanied by the name of its author. No proof of express malice in the publication is necessary, but malice may be implied. Formerly truth was no defense in an action for libel, but it is now a competent defense, the old rule of law having been changed by statute. When a person has occasion, in the discharge of some legal, social, or moral duty, to criticise the character or conduct of another, the communication in which he discharges such duty is called privileged, and is protected by the courts, and such protection is either absolute or relative. In the former instance, e.g., the proceedings of a court of justice, no action could be maintained; in the latter, e.g., a letter in regard to the character of a servant by a former employer, no action could be maintained unless express malice were proved. In a civil action of libel, if the words be clear, the judge determines whether they constitute a libel or not; but otherwise he must submit them to the jury. In a criminal prosecution for libel, the jury passes upon a mixed question of law and fact, viz., the proper meaning of the libelous words, and whether they constitute a libel. In many states the defendant is allowed both to set up a plea of justification, i.e., the truth of the alleged libel, and to put in evidence of the truth of the libel in mitigation of damages; this rule has been criticised as really allowing the defendant two separate defenses, by one of which he admits the libel and by the other denies it. LIBEL (in practice) is the petition of a plaintiff addressed to an ecclesiastical or admiralty court, setting forth his cause of action and the nature of the relief he expects. It is the ordinary form for the beginning of an admiralty suit in the United States courts.

LİBELT, KAROL, PH.D., b. Posen, 1807; studied mathematics and philosophy at Berlin, gaining a prize for his essay *De Pantheismo*. He was engaged in the Polish revolution of 1830, and after its failure retired to his estates in Posen, and devoted himself to periodical literature. He was arrested in 1846 for being concerned in the conspiracy of Mieroslawski, but liberated at the outbreak of the revolution at Berlin in 1848. He was a member of the Slavic congress at Prague in 1849, and a leader of the Polish fraction in the second Prussian chamber in 1859. His *Philosophy and Criticism*, in 5 vols., and his *Æsthetics*, in 3 vols., are his principal works. His philosophical works have been translated into German, and have attracted no little attention as able expositions of

the German philosophy. He has also written a number of mathematical, economical, and agricultural essays and pamphlets.

LIBER. See **BACCHUS**, *ante*.

LIBERALS, a name given first when lord Byron and his friends started the periodical called *The Liberal* to represent their views in politics, religion, and literature. The name since 1832 has been applied to the more advanced whigs and reformers. The party held office under earl Gray, viscount Melbourne, earl Russell, and viscount Palmerston. In May, 1874, the new city liberal club was organized with earl Granville as president, and a new liberal club for the west end was founded in June of the same year. Mr. Gladstone resigned the leadership of the party in 1875, and resumed it in Dec., 1879. As a party name this word *liberals* has been definitely adopted in Spain, where the party of the cortes assumed the title of *liberales*, and nicknamed their opponents by that of *serviles*.

Liberals in religion may include two classes; first, those who, like the German rationalists, reject the supernatural in revelation, accepting the historic Christ and his teachings as on the high plane of humanity; second, those who call themselves liberal Christians, as the modern Unitarians, who, admitting the supernatural, reject the vicarious atonement, the corruption of human nature, the necessity of regeneration, and (usually) the special inspiration of the Scriptures. Like the latitudinarians of the 16th c. and the modern broad church party, they consider dogma as unimportant, make much of the life and moral instruction of Christ, and are willing to fraternize with any who receive Christ as their teacher.

LIBER PONTIFICA'LIS, part of the title of a history of the bishops of Rome professing to begin with the apostle Peter and extending to Nicolas I. (867 A.D.), with an addition subsequently made of the times of Adrian II. and Stephen VI. (891). Anastasius, librarian of the church under Nicolas I. and abbot of a convent in Rome, was formerly supposed by many to be the author of the book; but later investigations have shown almost certainly that it existed before his time. The oldest materials now known that were used in the compilation of it were furnished by a list of the popes down to Liberius, which was probably written before his death (366). The original MS. has been lost, but several copies of it, taken in the 17th c. from other copies, are extant. Another list of the popes comes down to Felix IV. (530). Parts of it are almost literal copies from the former, but many additional particulars are given, drawn from various sources and having different degrees of historical value. Both lists were afterwards continued and ultimately formed the *Liber Pontificalis*, the oldest known copy of which belongs to the end of the 7th or the beginning of the 8th century. A first continuation of it extends to Gregory II., who became pope in 714, and a second ends with Stephen III., 757. After this time several other continuations were made, the latest of which terminates, as has been mentioned, with Stephen VI., 891. Besides the sources already spoken of, materials for the history were furnished by traditions, written documents, buildings, inscriptions, and other monuments. Additions to the book have been made: 1. By three histories of the popes, the authors of which are not known, (1) from Laudo, 912, to Gregory VII., and belonging to the 11th c.; (2) extending down to the same date, and written during Gregory's life; (3) from Paschal II., in the early part of the 12th century. 2. By a history written in the 13th c., extending from Gregory VII. to Honorius II. 1129. 3. By histories originating at the close of the 12th century.

LIBERTINES, THE, or SPIRITUALISTS, an odious and pernicious sect that sprang up in the 16th c. in the reformed church of France. They arose in Flanders. Calvin mentions Coppin of Lille, who first attempted to introduce the doctrines of the Free Spirit in his native city in 1529. Quintin and a priest named Pocques or Pockesius became the leaders in France in 1534. They are said to have made 4,000 proselytes in France alone, and not only among the lower classes, but also among the higher and learned. They obtained the favor and protection of Margaret, queen of Navarre, sister to Francis I., and found patrons in several of the reformed churches. They called themselves Libertines and Spiritual brethren and sisters. They themselves published no account of their tenets, but, so far as they can be ascertained from the writings of Calvin, their doctrine is about as follows: That the Deity is the sole operating cause in the mind of man, and the immediate author of all human actions; that consequently the distinction of good and evil with regard to these actions is false and groundless, and that men cannot, properly speaking, commit sin; that religion consists in the union of the spirit or rational soul with the Supreme Being; that all those who have attained this happy union, by sublime contemplation and elevation of mind, are then allowed to indulge, without exception or restraint, their appetites and passions; that all their actions and pursuits are then perfectly innocent; and that after the death of the body, they will be united to the Deity. Their system was pantheistic and antinomian. From being a mere dogma, it degenerated into open and avowed sensualism. Calvin sternly denounced their principles, and it was because of his efforts that this sect left France, took refuge in Belgium, and at last entirely disappeared. In Geneva they made an insurrection May 15, 1555, when their principal leaders were exiled or imprisoned. Dr. Mosheim considers these Libertines or Spirituals as a remnant of the ancient *Beghards*

or Brethren of the Free Spirit. This name in England was given to the early Anabaptists about the middle of the 16th century.

LIBERTY, a co. in n. Florida, having for its w. border the navigable Appalachicola river, and its e. the Ocklockonnee river, is bounded on the extreme n. by the Jacksonville, Pensacola and Mobile railroad; 800 sq.m.; pop. '80, 1362—1361 of American birth, 548 colored. Its surface is even, it has good tillable lands, and fine grazing pastures, but its farms are scattered and it is four-fifths woodland. Its soil produces tobacco, cotton, wool, rice, oats, corn, sweet potatoes, dairy products, and sugar-cane. It produced in '70, 16,335 lbs. of honey. Seat of justice, Bristol.

LIBERTY, a co. in s.e. Georgia, having the Cannouchee river for its n. boundary, the navigable Altamaha river and a tributary for its s.w., and the water of St. Catherine's sound on the s.e.; also drained by the North Newport river; 650 sq.m.; pop. '80, 10,564—10,533 of American birth, 7,040 colored. It is intersected by the Savannah, Florida and Western railway. It comprises St. Catherine's island, 15 m. in length, lying within the coast line, the distance that separates it from the mainland being not more than a mile. Its surface is level and sandy, particularly near the rivers, and in certain sections marshy. It is two-thirds covered with pine forests. It has a fertile soil adapted to the raising of live stock, oats, corn, sugar-cane, cotton, wool, sweet potatoes, wine, dairy products, honey, and in '70 it produced 1,219,430 lbs. of rice. Cash value of farms in '70, \$684,656, numbering 2,082 farms. Seat of justice, Walthourville.

LIBERTY, a co. in s.e. Texas, traversed by Trinity river and the Texas and New Orleans railroad; 1600 sq.m.; pop. '70, 4,414. Its surface is partly in prairie and partly in timber. Mineral springs are numerous, and petroleum has been found in some places. Cotton is one of the chief products of the soil, and cattle-raising is extensively pursued. Capital, Liberty.

LIBERTY, the capital of Clay co., Mo., on the Hannibal and St. Joseph railroad, 16 m. s. of Holt; pop. 1700. It has two weekly newspapers and is the seat of considerable trade.

LIBERTY, in theology. See **FREE WILL**, *ante*.

LIBERTY, RELIGIOUS, is the natural right, properly belonging to every man, to worship God and form his religious opinions according to the dictates of his own judgment and conscience. God revealed his law to the Hebrews as a nation. His words were spoken to the assembled multitude, demanding obedience from every man. The evidence that it was from him was given publicly to them all. Thus declared and proved it was binding on them; but the question whether they would receive it was between them and God. The adoption of it was to be their own voluntary act. After their entrance into Canaan the subject was submitted to them in a public assembly. All civil authority over religious affairs being disclaimed, the right of every man to judge and act for himself concerning them was recognized; the civil magistrate having simply the same right as every other man. This right the people exercised and thus entered into a covenant with God, by virtue of which the law revealed by him and adopted by them became the religion of the land. Under the old monarchies the king, arrogating to himself absolute power over his subjects, made no distinction between religious and secular things. Religion was simply one department of his government, in which his will was the only law. Thus the kings of Assyria, Babylon, Persia, and Syria imposed religion by absolute decree on all the nations under their control. Thus the Roman empire made laws on the subject of religion as a part of state affairs. When Christianity began to spread through the empire the emperors regarded it as subject to their will, because developed within their territory. Generally they were hostile to it and for various reasons. As it increased in power they became jealous of it. They strove to crush it as something that rivaled and threatened to subvert their own authority. This state of things, continuing for 300 years, culminated in Diocletian's determined effort to exterminate Christianity, in which he boasted for a time that he had succeeded. When Constantine, having become emperor by success in war, embraced Christianity, the hostility ceased; but the exercise of authority over the whole church went on unchanged, except that, being now in the hands of a friend and joyfully recognized by bishops and churches as belonging to him, it was extended to all departments of religious affairs. The first general council was convened by him, and was formally opened by his stately entrance, which Eusebius thus describes: "After all the bishops had entered the central building of the royal palace each silently awaited the arrival of the emperor. When his approach was announced they all rose from their seats, and the emperor appeared, like a heavenly messenger of God, covered with gold and gems—a glorious presence, very tall and full of beauty, strength, and majesty. When he reached the golden throne prepared for him he stopped, and sat not down until the bishops gave him the sign. And after him they all resumed their seats." In process of time, after the removal of the government from Rome, much of the authority over the west which the emperor had exercised naturally fell to the bishop of Rome, or was adroitly secured by him. Thus, as the papacy was established and strengthened, the governments of Europe found themselves subjected to an absolute dominion under the name of ecclesiastical authority. At the reformation, when several states of Europe renounced the authority of the pope, the Protestant kings

assumed the headship of the church as a department of the government belonging to them without question, by virtue of their office. The assumed power of legislative control embraced the very existence and organization of the church as a part of the state, and included its creed, ministers, services, and laws. Thus a national church being established in each country, they who differed from it in religious opinion or practice were liable to coercion, loss of property, civil disabilities, imprisonment, and even death. This state of things was one of the chief forces that produced and molded the settlement of those British colonies in America which at length became the United States. But, although many of the colonists came to these shores in order to enjoy religious liberty for themselves, none of them at first had learned to regard religion as separate from the state. On the contrary, the best of them expected to establish a religious state. In some colonies particular forms of religion were set up, and some articles of faith were established. In South Carolina, New York, and Virginia the church of England was established by law. In New England a kind of theocratic government was attempted. Among these colonies violent efforts were made to enforce uniformity. To Maryland, under the guidance of a governor who was a Roman Catholic, belongs the honor of granting toleration to other forms of religion. Rhode Island has the still higher distinction of being the first state that, separating entirely civil government and religion, recognized in its constitution the right of every man to absolute religious liberty. This separation of religion from secular affairs, having been once perceived and acknowledged, was rapidly accepted in the colonies, so that when the constitution of the United States was formed these two articles were made parts of it: "No religious test shall ever be required as a qualification to any office or public trust under the United States." "Congress shall make no law respecting an establishment of religion or prohibiting the free exercise thereof." The constitutions of the several states contain similar provisions. It has become a settled American principle, whether rightly or wrongly, that religion, from its very character, is a separate thing from civil governments; and that, as to it, all persons are equal and free before the law. The influence of American principles and practice has been very powerful over Europe and other parts of the world. Toleration in religious matters is becoming general, and great progress towards liberty of worship has been made. In France, different denominations are aided by the government; in Germany, the imperial government interferes little with the right of worship; in Russia, the public opinion of Christendom in general and of the United States in particular has mitigated the severity of autocratic control over religious affairs; Spain and Italy have been revolutionized; and under the Vatican liberty of worship is enjoyed. The liberty of belief and worship, however, is not held to include the right to form organizations called religious which hold themselves not amenable to the civil government. The colonies of Great Britain possess perfect religious liberty. A large part of the Scottish church has voluntarily renounced all governmental endowments in order to be free from state control. The Anglican church in Ireland has been disestablished by law. It is still established in England, but a particular religious belief is not now required as a qualification for any civil position, except the throne and the headship of a few literary institutions. In the Turkish empire, under the influence of American instruction and European diplomacy, much progress towards religious liberty has been made. And in most other countries of the world, through the power of civilization, commerce, and philanthropy, liberty is either positively or tacitly given to practice, teach, and embrace the Christian faith. In Austria, while there is a relaxation of former restraint, religious liberty cannot be said to be fully exercised: there are instances even of persecution.

LIBOCE'DRUS, a genus of evergreen trees, belonging to the conifera, resembling the arbor vitæ, but differing in the structure of the cones, the scales not overlapping as in that tree. There are two species in New Zealand, two in the mountains of Chili and in the Pacific sierras of the United States, growing usually at an elevation above 4,000 ft. The last-named species was named by Dr. John Torrey *L. decurrens*, from the fact that the bases of the small scale-like leaves are decurrent upon the stem. The tree attains a height of from 120 to 140 ft., and a trunk from 6 to 8 ft. in diameter without branches for 80 to 100 ft. Its beautiful, glossy, green foliage, and its graceful form when young make it one of the finest of ornamental evergreens. Some have been planted in the vicinity of New York and are said to have thrived well. It has been confounded with the *thuja gigantea*, but its decurrent leaves make an easy distinction. In California it is called *white cedar*, but this name properly belongs to another tree. Its wood, of a yellowish color, surpasses red wood in durability, and is valuable for various purposes.

LIBRARIES (*ante*). The first library foundation in America was established in 1621 through a benefaction, on the part of an unknown person in London, to the Henrico college, organized by the colonists of Jamestown, Va. The gift comprised "a small Bible, with a cover richly wrought; a great church Bible; the Booke of Common Prayer; . . . S. Augustine *De Civitate Dei*; Master Perkins, his workes; and an exact map of America." Other volumes were presented by persons in England and in the colonies; but on Mar. 22, 1622, the settlements on the James were swept away by the torch and tomahawk of the savage, and the library ceased to exist. The next attempt at the formation of a library occurred in Cambridge, Mass., in the case of the Harvard college endowment in 1638. This collection increased slowly during the next century

and a quarter, and in 1764 numbered about 5,000 volumes. On Jan. 24 of that year it was totally destroyed by fire. In the meantime there had been formed in Philadelphia the nucleus of the institution which has existed to the present day, and is now known under the name of the "Philadelphia library company." It grew originally out of a debating society, of which Benjamin Franklin was one of the founders, and which he terms "the mother of all the North American subscription libraries." This society was made up of reading men, who turned their own books into a common stock; and, as opportunity offered, purchased others, importing the latter from London, and had a number presented to them. This beginning of what was to become one of the great libraries of the western world was in 1729-30. Ten years later the books were removed to a room in the state-house; in 1773 they were again transferred, this time to Carpenters' hall. In 1742 the company was regularly incorporated; and in 1769 and 1771, the Union library company, the Association library company, and the Amicable company were merged with it, the entire corporation assuming the name which it has ever since borne. The first building erected in the United States to be devoted to the uses of a public library was that of the Loganian library (1745-50), which was the gift of James Logan to the city of Philadelphia, and stood in Sixth street, between Chestnut and Walnut streets. The Loganian library passed, in 1792, under the control of the Philadelphia library company. The New York society library (New York, 1700), the Redwood library (Newport, R. I., 1747), and the Providence library (Providence, R. I., 1753), were among the principal libraries founded in the colonies before the revolution. In 1765 a circulating library was established in Boston, Mass., by one John Mein, a bookseller, which numbered about 1200 volumes, had a printed catalogue, and was supported by an annual subscription of 28s. from each member. The will of John Oxenbridge of Boston, dated Jan. 12, 1673-4, makes mention of a bequest of books to the "public library;" and reference to such an institution also occurs in the town records for Mar. 11, 1695; no other information is afforded concerning it.

The introduction of the system of school libraries originated in the state of New York in 1835, when a law was passed appropriating \$55,000 a year for the purchase of books for the different school districts, and requiring an equal amount to be raised by taxation to be added to that sum and applied to the same purpose. The plan continued in successful operation until 1853, when these libraries contained an aggregate of 1,604,210 volumes. From that period it was not sustained; the number of volumes decreased, and had fallen off one-third in 1875; and the usefulness of the institution was apparently over. In Massachusetts the school library system went into effect in 1837, but existed only about twelve years, when they were superseded by free town libraries. In some of the states which appropriated sums for the foundation and sustenance of district school libraries, they flourished from the first, and have continued to answer their purpose satisfactorily up to the present time. Such has been the case in California, Iowa, Illinois, and New Jersey. In other states, as in New York, they were popular and well-conducted for some years, but gradually fell into a decline, out of which they were gradually brought again to a healthy condition; as in Connecticut, Rhode Island, Indiana, Ohio, and Wisconsin. In the states of Maine, Missouri, Oregon, Pennsylvania, Kansas, Virginia, Kentucky, Minnesota, and others, the effort to establish these libraries has not met with success; although in most instances supported by special legislation in its favor.

Mercantile libraries started with those of Boston, Mar. 11, 1820, and New York, Nov. 9, 1820, which were followed rapidly by similar organizations in other states. Such institutions have been usually founded by merchants' clerks, on a basis of annual dues and fees on entrance. They have not generally been self-supporting on this foundation, but have owed whatever prosperity they have achieved to liberal gifts from individuals. Young men's Christian associations, though covering a broader field, include a public library system in their scheme of work. The first of these associations in America was established in Boston in 1851, the idea having originated in London in 1844. Their number in the United States and Canada had reached 519 in 1875. Of these, 198 owned libraries containing 181,340 volumes. There were also 47 women's Christian associations, with 16 libraries under their control.—Of the college libraries reported in 1876, 71 were considered important, containing, in the aggregate, 1,392,819 volumes. The number of prominent theological libraries was 44, reporting 524,024 volumes. Fifty principal law libraries, not including those of the general government, numbered 254,403 volumes; 30 medical libraries contained 166,755 volumes; 80 scientific libraries, 430,507 volumes; and 45 prisons and reformatories, 64,144 volumes. The total number of public libraries in the United States in 1876 was 3,647, containing 12,276,964 volumes. As the average increase was about 1,000,000 volumes per year, the number in 1881 would probably be about 16,000,000; to which add the number in the district school libraries, not enumerated above, viz., 1,365,407, and the grand total would be nearly 18,000,000 volumes.

The leading public libraries of the country in size and importance are the Astor library (q. v.), New York; Atheneum, Boston; library of congress, Washington; Lenox, New York; Philadelphia library company, Philadelphia; public, Boston; and society, New York. The Boston atheneum originated in 1805 in the anthology society, and was at first a reading-room. In 1807 it was incorporated and received its present desig-

nation; and seven years later it contained 8,209 volumes. The circulation of its books among proprietors began to be permitted in 1827, when it contained about 20,000 volumes. The present edifice of this institution was erected and opened for use in 1849, and cost \$200,000. The library contained 105,000 volumes in 1876.—The library of congress was founded on the establishment of the seat of government in Washington in 1800, and at the session in Dec., 1801, Thomas Jefferson, who presided, took a warm and practical interest in the progress of the library. At this session, also, John Randolph, of a special committee, made a report which formed the basis of an act of congress, the first of that nature, organizing the library. On Aug. 25, 1814, the capitol was burned by the British, and the library, which contained about 3,000 volumes, was entirely destroyed. During the same year congress purchased the private library of ex-president Jefferson, numbering about 6,700 volumes, for \$23,950. An annual appropriation being made for the purchase of books, the library continued to grow slowly, and in 1851 numbered 55,000 volumes. On Dec. 24 of that year, a second conflagration destroyed all but 20,000 volumes, which fortunately formed the more valuable portion, but from that period the library continued to increase more rapidly than ever before. In 1866 the collection of books of the Smithsonian institution was transferred to the shelves of the library of congress, an increase of 40,000 volumes. In the following year it was still further enriched through the purchase by congress of the historical library left by Peter Force, of Washington, at a cost of \$100,000, and which numbered nearly 60,000 titles in books, pamphlets, and manuscripts, besides the unpublished materials of the *Documentary History of the United States*, of which Mr. Force had issued nine folio volumes. The act of congress, passed Aug. 10, 1846, made it incumbent on the author of every book, map, print, etc., for which a copyright was secured, to forward, within three months after publication, one copy each to the librarians of the Smithsonian institution and congressional library for the use of these libraries. The average number of deposits under this act amount to 25,000 articles per annum. In 1861 the annual appropriation for the purchase of books was increased by congress from \$7,000 to \$10,000. The library of congress contained, in 1876, 300,000 volumes and about 60,000 pamphlets.—The Lenox library, New York city, was incorporated in 1870, and was the gift to the city of James Lenox, esq., a wealthy gentleman of recognized bibliographical attainments, and whose private collection, numbering about 15,000 volumes, was exceptionally rich in the department of editions of the Scriptures and that of American history. Mr. Lenox's gift included the handsome and commodious library building, with the land on which it was erected, the rare collection of books above mentioned; and a considerable gallery of ancient and modern paintings. The entire sum of money represented in this library is doubtless considerably more than \$1,000,000. Of this sum, \$212,000 was invested as a permanent fund for the sustenance of the library and its future increase.—The Philadelphia library remained in Carpenters' hall until 1790, when it was removed to a building in Fifth street; and thence, in 1880, to its present quarters, corner Thirteenth and Locust streets, Philadelphia. Including the Loganian library, it numbered in 1876 about 100,000 volumes. The present building was constructed by subscription, to which the late Joseph Fisher gave by bequest the sum of \$54,488.12. In 1869 Dr. James Rush bequeathed his large estate, valued at over \$1,000,000, for the purpose of erecting a fire-proof building, to be called the Ridgway branch of the Philadelphia library; and this structure of granite was erected at the corner of Broad and Christian streets, and devoted to the purposes for which it was designed.—The Boston public library was founded by act of legislature passed in 1848; and was organized in 1852, with Edward Everett as first president. Money and books had already been given to the institution by prominent citizens, and in the same year (1852) Mr. Joshua Bates of London presented to it the sum of \$50,000. The library was opened to the public, Mar. 20, 1854, in a building applied to the purpose, in Mason street; and in 1858 the building erected for its permanent home was opened, both as a reading-room and circulating library. The reference library (Bates's hall) was opened in 1861 with about 74,000 volumes. The whole number of books in the library in 1876 was about 300,000 volumes.—The New York society library was founded in 1700 under lord Bellomont, governor of the province, being then known as the city or public library, and contained in the city hall. It was probably the earliest loan library established in America, and became particularly valuable through being enriched by the gift of the collection of rev. Dr. Millington, of Newington, England, presented to the colonies of America, and deposited in the city hall of New York, by the society for the propagation of the gospel; this collection numbered 1642 volumes. In 1754 the society library proper was formed on a basis of membership subscription, and the first purchase of books, made in London, was deposited with the Millington collection. This library contained in all, in 1776, about 4,000 volumes. It continued in the city hall until 1795, when a building was erected for its use in Nassau street. In 1840 a new building was put up on Broadway (corner Leonard street), in which the library was placed, and where it remained until 1853, when the property was sold and the books removed to the Bible house. The final transfer to the present society library building in University place was made in 1856. In 1876 the number of books in the society library was about 65,000.—All the large American cities are supplied with public libraries of varying degrees of completeness and efficiency. The public library of Cincinnati, Ohio, originated from a

concentration of the school libraries of that city; and occupied its present building, constructed for the purpose, in 1874, at which time it contained 70,000 volumes, with capacity for 250,000. Its actual date of foundation is Mar. 18, 1867, when a state law organized it on its present basis. The mercantile library association of St. Louis, Mo., are in possession of the largest public library in that city, numbering in 1876, 42,013 volumes. It was founded in 1846. The principal public library of Baltimore, Md., is that of the Peabody institute, founded in 1857, and opened to use in 1861, and which contained, in 1875, 57,458 volumes. The San Francisco mercantile library, the leading one in that city, was founded in 1853, and in 1876 contained 41,573 volumes. The Brooklyn, N.Y., mercantile library was founded in 1857 and contained 50,257 volumes in 1875. In the same city the Long Island historical society, founded in 1863, entered its present building in 1880. In 1876 it contained 26,000 bound volumes and 25,000 pamphlets, besides valuable manuscripts, paintings, and curiosities. The library of the Chicago historical society and the young men's association library were both destroyed in the great fires of 1871 and '74, but the former has since been slowly recuperating. The public library of that city resulted from the general public sympathy felt on account of these losses, and originated in generous donations on the part of authors and others, at home and abroad. This library numbered nearly 50,000 volumes in 1876.—The libraries of the different departments of the general government at Washington numbered, in 1876, 656,070 volumes and 116,505 pamphlets. The state and territorial libraries, 47 in number, comprised in the same year 834,219 volumes. The number of historical societies in the United States was 77, and their libraries included 482,035 volumes, exclusive of a very large number of valuable pamphlets. The number of mercantile libraries, young men's associations, and atheneums reported was 64, numbering 1,055,903 volumes.—Not to enter at any length on the nature of the management of public libraries in the United States, it may be remarked that in recent years there has been exhibited a more general tendency towards the classification of books by subjects, and in the direction of the system of card-cataloguing. These have taken the place of the ancient method of alphabetical arrangement by authors, and the manuscript, or printed catalogue. Even in comparatively small collections the author system of arrangement has been found inadequate when followed exclusively; while the elasticity of the card-catalogue, whether of authors or subjects, has approved itself fully, in the minds of thoughtful librarians, as a simplification of their duties in this regard, while avoiding many inconveniences and difficulties which prove insuperable in the application of other methods. Adopted in connection with an occasional printed catalogue, this is found to answer to the wants both of those who desire general information as to the contents of a library, and those who wish to keep pace with its most recent acquisitions.

LIBURNIA, in ancient geography, a mountainous district of Illyricum, on the Adriatic coast, now a part of Croatia and Dalmatia. From early times the Liburni were daring seamen, and were in the possession of Corcyra, Issa, and other islands when the Greeks took these places. They were noted pirates, and their privateers, with a large lateen sail, were for centuries the terror of the seas. The galleys of the Liburni were noted for their light construction and swiftness, and the Romans, adopting this style of naval architecture, called all fast sailing vessels *naves Liburnæ*. By means of these light galleys Augustus gained the battle of Actium. The only important towns in Liburnia were Jadera and Scardona.

LIB'YAN DESERT (LIBYA, *ante*), the name often given by the ancients to the whole of Africa, but generally applied to that part of the Sahara, or Great Desert, lying e. of Fezzan and the country of the Tibboos. The region is probably about 1000 m. long by 500 or 600 m. in breadth. It contains a number of oases, or fertile tracts, islands of verdure in the vast sands, which support a sparse population; but the surface generally consists of irreclaimable sandy or gravelly plains, separated by low rocky ridges, or shelving down in a series of terraces toward the Mediterranean.

LIB'YANS, people of Libya, a name given by the Greeks to Africa, probably from the name of the people whom they found in possession of the northern part of the continent to the w. of Egypt, and who are believed to have been the *Lehabim* or *Lubim* of the Hebrew Scriptures. These Lubim seem to have consisted of wandering tribes, sometimes in alliance with Egypt, at others with the Ethiopians. In the time of Canbyes they formed part of the Persian empire. They are mentioned by the prophet Daniel in connection with the Ethiopians and Cushites. Herodotus divided the natives of Africa into two classes, the Libyans and the Ethiopians, one occupying the northern, the other the southern part. But the Romans limited the term Libya to that part of Africa which extended along the Mediterranean from the Greater Syrtis to Egypt, and stretching inland to the deserts. This was the Libya Proper of the New Testament, Acts ii. 10. Lepsius and other Egyptologists suppose that they occupied even Egypt, until driven out by the Egyptians, who emigrated from Asia. In remote antiquity the people were civilized, and powerful by sea and land. They often invaded Egypt until their power on the sea was broken by Thothmes III., 1600 B.C.; but by land they continued to harass the Egyptians and desolate the country. In 1400 B.C. they joined the Pelasgic nations on the northern coasts of the Mediterranean, and, in connection with the

Tyrrhenians and Achæans, they invaded and nearly conquered lower Egypt, under their king Maurmuin, but they were stopped in central Egypt, and defeated by Rameses II. They were eventually subdued by the Carthaginians, and their country has successfully passed into the hands of the Greeks, Romans, Saracens, and Turks.

LIB'YAN SEA, the name given in ancient geography to that part of the Mediterranean which lies between the island of Crete and the coast of Africa.

LICA'TA. See ALICATA, *ante*.

LICENSE, in law, an authority given by one person or party to another to do certain acts. Licenses are either *executory*, where the act authorized has not been done, or *executed*, where it has been done. At law all licenses may be revoked by the grantor, unless the license be coupled with an interest, and the same rule prevails in equity courts, except that the latter sometimes hold that an executed license, where the licensee has been put to expense, is not revocable at the pleasure of the grantor. Thus, where a licensee who has been granted some privilege in connection with another's land, on the strength of his license has been induced to incur expense, at law his license is still held to be revocable, as a contrary ruling would be equivalent to creating an interest in land without writing, against the provisions of the statute of frauds. A court of equity regards such an executed license as an executed verbal contract, one of the parties to which, the licensee, has gone too far to be put back into his former position as to the other party. But the revocation of an executed license will save the licensee harmless from liability or responsibility for such acts as he has done according to his license. A license is either *express*, i.e., granted expressly, or *implied* from the acts of the grantor. A license in regard to land is not to be confused with an easement which is an indefeasible interest in land, irrespective of the will of the owner of the servient estate, or with a lease which confers a right to the profits of land. An easement, moreover, can be created only by grant or prescription, while a license authorized orally is good. An executed license which puts an end to an easement of the grantor in the licensee's land is irrevocable. The most common licenses in the United States are licenses to sell liquor, to engage in certain occupations, etc. Such licenses are a matter of statutory regulation. A license in international law is an authority given by a state engaged in war to its subjects or the subjects of the state with which it is at war, to engage in a trade forbidden in time of war. The right to give such licenses is original with the sovereign power, and they may be given by commanding officers in the army or navy as its delegates. License *in pleading* is a plea by the defendant in an action of trespass that the owner of the freehold gave his permission to the alleged act of trespass. A license *in patent law* is a permission to make or sell a patented article in a specified locality, or anywhere in the United States.

LICENSE, in music. The liberty which a composer takes in deviating from the rules of his art, and which is often marked with the words *con licenza* in order to indicate that it has been introduced intentionally to produce some unusual effect. Many licenses occur, however, in the works of great composers like Mendelssohn, Bach, and Haydn, where the notice *con licenza* is omitted, but it will generally be found that they are introduced for artistic purposes, and to strengthen the harmony of some ineffective passage.

LICHTENBERG, GEORG CHRISTOPH, 1742-99; b. Ober-Ramstadt, near Darmstadt; taught first by his father mathematics and physical studies; studied at Darmstadt and Göttingen, and appointed professor in the university of Göttingen in 1770. In 1777 was professor of experimental philosophy. He had before this visited Great Britain and made himself master of English literature. In his latter days he was subject to hypochondria, which led him to withdraw from all society other than that of his wife and five children. His malady did not interrupt his studies or his extensive epistolary correspondence. His works were collected in 9 volumes. Among the most important were *Ueber Physiognomik wider die Physiognomen*; *Ueber die Pronunciation der Schöpse des alten Griechenland*. His *Erklärung der Hogarthischen Kupferstiche*, which was unfinished at his death, but published afterwards, was a work of great merit. The author shows keen wit, comic power, and severe satire.

LICHTENFELS, a t. in Greenland, on the s.w. coast, lat. 64° n., long. 52° w., founded by the Moravians, or Bohemian brotherhood, in 1758, and inhabited chiefly by Danes.

LICK, JAMES, 1796-1876; b. Fredericksburg, Lebanon co., Penn.; learned the trade of a pianoforte manufacturer in Philadelphia, and followed the business successively in New York, in Buenos Ayres, Valparaiso, and different places in Peru. In 1847 he settled in San Francisco, bringing with him a capital of \$30,000, which he invested in real estate in that city. The profits on this investment made him very wealthy, and in 1874 he placed \$2,000,000 from his estate in the hands of seven trustees, to be devoted to certain specified public and charitable uses. In 1875 Mr. Lick desired to make some changes in the schedule of his gifts, to which the trustees were doubtful of their right to give assent. At his request they resigned, and other men were selected by him to fill their places. The next year he died, and litigation followed on behalf of his son and other heirs, who advanced a claim upon the property. The issue was settled in 1878 by

an agreement on the part of the trustees to pay the son, John H. Lick, £385,000 in addition to the sum intended for him by his father, he agreeing to divide \$72,000 of the amount between the other heirs. This left the list of Mr. Lick's bequests as follows: To the university of California, for the erection of an observatory, and procuring therefor a telescope superior to and more powerful than any ever before constructed, \$700,000; to the Protestant orphan asylum in San Francisco, \$25,000; to the city of San José, for the purpose of erecting and supporting a non-sectarian orphan asylum, \$25,000; to the ladies' relief and protective association of San Francisco, \$25,000; to the mechanics' institute of San Francisco, for the purchase of scientific and mechanical works, \$10,000; to the San Francisco society for the prevention of cruelty to animals, \$10,000; to found an old ladies' home in San Francisco, \$100,000; for the erection in San Francisco of free public baths, \$150,000; for the erection of a group of bronze statuary around the city hall of San Francisco to represent the history of California, \$100,000; to erect in Golden Gate park a monument to Francis Scott Key, author of *The Star Spangled Banner*, \$60,000; to found and endow the California school of mechanic arts in San Francisco, \$540,000. The residue of the estate, if any there shall be, will be divided between the San Francisco society of pioneers and the academy of sciences. How many of the associations named above have received in whole or in part the sums awarded them is not reported authoritatively. Of course, considerable time was required to turn the estate into cash and close the various trusts; but it is believed that sooner or later Mr. Lick's plan of beneficence will be completely executed. The observatory of the university of California will be erected on the summit of Mount Hamilton, a peak of trap-rock in Santa Clara co., 4,250 ft. above the sea, where there is nothing to obstruct the view within a radius of 100 miles. The point is nearer to the equator than any of the grand observatories of Europe or America.

LICKING, a co. in central Ohio, drained by Licking river and its branches; 670 sq. m.; pop. '80, 40,451. The surface is level or rolling, and the soil rich and well cultivated. Its products are various and extensive, live stock, grain, and wool being the principal. The chief manufactures are carriages, leather, lumber, and saddlery. The Ohio canal, and the Sandusky, Mansfield, and Newark, and the Pittsburg, Cincinnati, and St. Louis railroads pass through the county. Capital, Newark.

LICKING RIVER rises in the mountains of Floyd co., Ky., flows n.w. 180 m. and empties into the Ohio opposite Cincinnati. At high water small steamboats can ascend a distance of 60 m. to Falmouth. Another river of the same name, near the center of Ohio, empties into the Muskingum opposite Zanesville.

LIDDELL, HENRY GEORGE, D.D., b. England, 1811; graduated at Christchurch, Oxford, 1833, with high honors; was head-master of Westminster school for a time; and in 1862 was chaplain extraordinary to the queen. He was appointed dean of Christ church in 1855, and vice-chancellor in 1870. He wrote a *History of Rome from the Earliest Times to the Establishment of the Empire*.

LIDDON, HENRY PARRY, D.D., b. England, 1830; graduated at Christchurch, Oxford, in 1850; was vice-principal of the theological college, Cuddesdon, from 1854 to 1859; became prebendary in Salisbury cathedral in 1864, and in 1870 was installed canon resident of St. Paul's, London, and appointed professor of exegesis at Oxford. He was appointed Bampton lecturer in 1866. He holds with the strict ecclesiastical party in the church of England; has a logical mind, a fervent spirit, and deep theological learning, and is regarded as unsurpassed for eloquence by any preacher in the national church. He has published a volume of *Lenten Sermons*, and his Bampton lectures on *The Divinity of Our Lord and Savior Jesus Christ* have given him a high reputation.

LIEBER, FRANCIS, LL.D., 1800-72; b. at Berlin, Prussia. His parents were in moderate circumstances, but gave him excellent opportunities for study. When only 15 years old, leaving the study of medicine, Lieber enlisted for the Waterloo campaign, and at the battle of Namur was severely wounded. After Napoleon's overthrow he resumed his studies with ardor, and soon, becoming imbued with liberal political ideas, was accused of plotting against the government and imprisoned. The charges never came to trial, but on his discharge permission to re-enter the gymnasia of Berlin was refused. In 1820 he took his degree at Jena, and was at Dresden when the Greek struggle for independence excited his sympathy; an account of the part he took in that revolution is given in his *Journal in Greece* (1823). In 1822 he found his way to Rome, where he became a welcome inmate of the family of the great historian Niebuhr. With him Lieber returned to Berlin, and was rearrested on allegations of disloyalty based on the old charges. After a short imprisonment at Köpnick, enlivened by the composition of a number of poems, he was released through the efforts of his friend Niebuhr; and, wearied by this constant persecution for opinion's sake, left his native country forever. For a short time he resided as a teacher in London, but in 1827 he embarked for the new world; where, though rejected of Berlin, he was to find in the great cities of Boston, New York, and Philadelphia, a wide and respectful hearing for his profound philosophy, and universal appreciation of his political acumen. His first work, the editing of the *Encyclopædia Americana*, was completed during his five years' residence in Boston.

(1827-32). The next two years were spent in Philadelphia, where he was interested in educational plans in connection with Girard college; in 1835 he removed to Columbia, S. C., where he occupied the position of professor of political economy in the South Carolina university; and here he produced his greatest works: *A Manual of Political Ethics* (1838); *Legal and Political Hermeneutics* (1839); and, perhaps most important of all, *Civil Liberty and Self-Government* (1853). In the line of investigation and reflection suggested by such titles as have just been given, Dr. Lieber stands second to none. As a writer, his diction, though at times lacking in clearness, is elaborate and often eloquent. As a publicist he was singularly free from narrowness, prejudice, or a limited perception. Such writers and jurists as Story and Kent recognized in him a kindred mind. The spirit of his work is indicated in his often-repeated axiom that every obligation has its corresponding liberty, and every privilege its accompanying duty. Dr. Lieber's appointment to the chair of political economy in Columbia college, New York, was in 1856; the dissimilarity between his ideas and those of the South, as it then was, rendering a prolonged stay in South Carolina unpleasant; and shortly after he was made professor of political science in the Columbia law school. In this position he remained until his death, Oct. 2, 1852, instructing not his pupils alone, but, by his frequent publications, the whole thinking world. In 1870 Mexico and the United States agreed upon him as the final arbitrator in matters then pending between the two countries. Among his voluminous minor writings may be noted: *Reminiscences of Niebuhr*; *Essays on Property and Labor*; *Laws of Property*; *Penal Laws and the Penitentiary System*; *Prison Discipline*; *The Origin and Development of the First Constituents of Civilization*, and *Great Events Described by Great Historians*. A collection of Lieber's miscellaneous writing in 2 volumes was published in 1880; the first volume containing reminiscences, addresses, and essays; the second, contributions to political science, lectures on the constitution of the United States, and other papers. Dr. Lieber contributed many articles to European and American periodicals, and was a member of several scientific and literary societies of both continents.

LIEBER, OSCAR MONTGOMERY, 1830-62; b. Boston; son of Dr. Francis; educated as a chemist and mineralogist at the universities of Berlin and Göttingen and the school of mines at Freiberg, Saxony. He was appointed state geologist of Mississippi in 1850, and shortly afterwards wrote *The Assayer's Guide*, *The Analytical Chemist's Assistant*, and *Geology of Mississippi*, besides contributing many articles to the *Mining Magazine*. In 1854-55 he was engaged in the geological survey of Alabama, and 1856-60 held the position of mineralogical, geological, and agricultural surveyor of South Carolina. The results of his labors there appeared in four successive annual reports. In 1860 he went as geologist to Labrador with an astronomical expedition. A year later he enlisted in the confederate army, was mortally wounded at the battle of Williamsburg, and died in Richmond, Va.

LIEBHARD, JOACHIM. See CAMERARIUS, *ante*.

LIEBIG, JUSTUS VON, Baron (*ante*). Soon after becoming professor of chemistry at Giessen, Liebig established an analytical laboratory, and it was this that constituted the great attraction which drew pupils from all parts of the world. Among the English students of practical chemistry were profs. Playfair, Gregory, and Johnston; and Americans were too numerous for impartial mention. Profs. Hofmann, Will, and Fresenius were his assistants. In 1832, in connection with prof. Geiger of Heidelberg, he established the *Annalen der Pharmacie*, to which he was a contributor till near his death in 1873. At a meeting of the British association for the advancement of science in 1838 he was requested to draw up a paper on isomeric bodies, and another on organic chemistry. It was in response to this that his work entitled *Organische Chemie in ihrer Anwendung auf Agricultur* was dedicated to the British association. It was translated into English from the manuscript by prof. Lyon Playfair in 1840 under the title *Chemistry in its Application to Agriculture and Physiology*. It was also published at Brunswick in the same year in the original German under the above title. A French translation by Gerhardt also appeared. Soon afterwards was published his *Chemische Briefe*, which had a wide circulation in England and America under the title, *Familiar Letters on Chemistry and its Relations to Commerce, Physiology, and Agriculture*. These letters created great interest in Europe and America, and were the cause of the foundation of many chemical schools in colleges and universities. His second report in 1842 to the British association, entitled *Die Thier-chemie oder Organische Chemie in ihrer Anwendung auf Physiologie und Pathologie*, and translated from the manuscript by prof. Gregory under the title, *Animal Chemistry, or Chemistry in its application to Physiology and Pathology*, was the means of calling general scientific attention to the subject of food and diet, and of renewing the study of therapeutics. Many papers from Liebig appeared in the *Annalen der Pharmacie*, which afterwards were collected in two works, one published at Leipsic in 1847, the other at Brunswick in 1848. They were translated by prof. Gregory under the titles, *Researches on the Chemistry of Food* and the *Motions of the Juices in the Animal Body*. With Poggendorff, Liebig compiled the *Hand-Wörterbuch der Chemie* in 9 vols. (Brunsw., 1837-64). He also wrote the organic chemistry in *Turner's Elements of Chemistry*. In 1848, in connection with prof. Kopp, he commenced the publication of an annual report on the progress of chemistry, which has been continued

till the present time. In 1855 he published *Grundsätze der Agricultur Chemie*; in 1856 *Theorie und Praxis der Landwirthschaft*, and in 1859 *Naturwissenschaftliche Briefe über die Moderne Landwirthschaft*; all of which have been translated into several languages. He gave great attention to the subject of fermentation, and was for many years the great authority upon the subject. He regarded fermentation as the result of the action of a peculiar body whose molecules are in a state of change; producing on the fermenting body a catalytic action; and that it was not caused by the abstraction of some of its constituents by growing germs—the theory which has since supplanted his. (See FERMENTATION, *ante*, and YEAST.) He was for a long time engaged in controversies upon the subject, his last paper being published in 1870, in which he maintains his theory with remarkable skill. Liebig's style was both terse and elegant, flowing naturally from a clear and strong intellect, and his capacity for severe and continued work was rare. He took much interest in America, probably in consequence of the many gifted Americans who became his pupils in the laboratory at Giessen; and it has been said that he sometimes entertained thoughts of coming to the United States to reside and pursue his chemical investigations. He was made a baron in 1845 by Louis II., grand duke of Hesse-Darmstadt. His collected works were published at Leipsic and at Heidelberg, in 1874.

LI'EN (*ante*). Another division of liens is into liens by common law and liens by usage. The former occur in the ordinary contracts of bailment; the latter arise by an established general usage of trade, or special usage of the parties, and are for the most part general liens. A lien may be created by express agreement, but without such agreement the common law gives a lien to certain classes of persons; thus, persons to whom property has been pawned, common-carriers, innkeepers, etc., have a particular lien. An equitable lien is one recognized by courts of equity alone. Such liens are in the nature of a constructive trust, as the lien of a vendor of real estate for unpaid purchase money, or of the vendee of real estate who has paid part of the purchase money; but these liens are not recognized everywhere in the United States. The person claiming such a lien must not have accepted any other security, such as the note of a third person. Maritime liens differ from common law liens in that they do not rest upon possession. The owner of a ship has a lien on the cargo for his freight, the shipper has a lien upon the ship to the amount of the goods shipped by him, a seaman has a lien upon both ship and freight for his wages, etc. A master of a vessel has a lien, by statute, in England, for his wages and for sums paid out by him, but in the United States he has no lien upon the vessel for his wages, but a lien upon the freight for his disbursements. In the United States an important class of liens has been created by statute. These are called mechanics' liens, and give to men who labor, or who furnish labor or material for the erection or repair of buildings, a lien upon such buildings, from the time they begin to labor or to furnish labor or materials. This class of liens is irrespective of possession. Another statutory lien is a judgment lien upon real property against which judgment has been rendered. Liens, as a rule, are enforced by a sale of the property upon petition to the proper court.

LIEUTENANT (*ante*). In the U. S. army and marine service, the rank next following that of captain, and of which there are two grades, first and second lieutenant, the latter being the lowest commissioned officer. These grades rank with those of master and ensign in the U. S. navy.

LIEUTENANT-COLONEL (*ante*). That rank in the U. S. army next above major and next below colonel, and answering to that of commander in the navy.

LIEUTENANT-GENERAL (*ante*). In the U. S. army, the rank next beneath that of general; the latter, under the president, being commander-in-chief. It was first authorized by congress in 1798 and bestowed upon gen. Washington in view of the then anticipated war with France. After Washington's death the rank remained in abeyance until 1855, when it was revived (in brevet) by congress for gen. Winfield Scott, at whose death it again lapsed. In 1864 it was again revived by special act, and conferred on gen. U. S. Grant, on whose promotion by the creation of the grade of general in his behalf maj.gen. William T. Sherman became lieutenant-general; and, on his succession to the rank of general, maj.gen. Philip H. Sheridan was promoted to be lieutenant-general, and still (1880) holds that rank.

LIEVEN, DOROTHEA, Princess of, 1785–1857; b. Riga; daughter of Christoph von Benkendorff, an Esthonian of the middle class; was brilliantly educated, and when quite young was married to prince Christoph Lieven, Russian ambassador at the court of Prussia. Established in Berlin, she displayed remarkable diplomatic aptitude, while gaining an important social position through the exercise of fascinating personal qualities. Her correspondence became very extensive, and she soon enjoyed a continental reputation. On her husband's appointment to the court of St. James in 1812, she simply changed the immediate field of her influence and speedily established herself in a firm position in political and fashionable society in London. In 1834 the prince became governor of the czarovitch, Alexander II., and was greatly assisted in his important functions by the comprehensive capacity of his wife. In 1837 the princess removed her residence to Paris, and two years later her husband died there, some, after which period

she resided permanently in the French capital. Here she was universally sought after by the most important personages in diplomacy, and her saloon was the center of schemes and intrigues, having for their subjects the interests of half of Europe. She began to fail in health early in 1857, but retained her faculties to the last.

LIFE. See BIOLOGY.

LIFE INSURANCE. See INSURANCE.

LIFE-RAFTS, structures made to serve the purposes of life-boats when the latter are lacking. They may be made of various materials, such as are at hand. Logs, boards, stools, broken timbers, bound together with ropes or cords, or even the bark of trees when ropes cannot be found, are susceptible of being formed into rafts which may be managed by resolute and experienced men in the saving of life from a wrecked ship. But apparatus is sometimes provided for the purpose of forming rafts to be used in emergencies. A number of cork life-preservers or inflated bags covered with canvas, and divided into two sections with a space between, may be used. Mr. H. B. Mountain has devised a raft in which a water-proof canvas sack has its edges secured along the centers of two mattresses so as to provide an open chamber between them in which persons may be seated. It has been attempted to construct a vessel in such a way as to have cabins or structures removable, so that they may be floated away in case of wreck, but all such ingenious devices are probably much less useful and manageable than life-boats, which can be as easily provided.

LIFE-SAVING SERVICE. The first instance on record of a combined public effort in the direction of life-saving is that of the national life-boat association, in England, founded in 1824 under the name of the royal national association for the preservation of life from shipwreck. But as early as 1785, when the first patent was granted for a life-boat, the subject was attracting general attention; and a second boat, invented four years later, is said to have saved nearly 300 lives from vessels wrecked near the mouth of the Tynemouth haven, during the following fifteen years. The life-boat association was established "to grant funds for making life-boats, boat-houses, and life-buoys; to assist in training boatmen and coast-guardsmen to aid ships in distress; to interchange the fullest information, with corporate bodies and local committees, concerning life-saving appliances; and to reward by money, medals, and votes of thanks, those who might render aid to ships in distress, or to persons escaping from such ships." Between 1824 and 1877 this institution saved 25,435 lives: in 1876 it had 2,541 life-boats. But this association had been already indirectly preceded in the United States in the same direction, through the application of the machinery of the Massachusetts humane society to life-saving, as early as 1786. This organization, formed for general benevolent purposes, and incorporated 1791, devoted attention to the dangers of the coast of Massachusetts and to the succor of shipwrecked seamen and others, by erecting huts for their shelter on specially exposed portions, the first of these having been set up on Lovell's island, near Boston. The first life-boat station of the society was established at Cohasset in 1807, and was followed by the erection of a number of others. This movement attracted the attention of the government, which in 1847 appropriated \$5,000 "for furnishing the light-houses on the Atlantic coast with the means of rendering assistance to shipwrecked mariners." In 1855 a second appropriation, of \$10,000, was made by congress: in 1857, one of \$10,000; and in 1870, one of \$15,000. This society is still in active service, having 78 stations. Other societies, designed to aid in the protection and safety of life, were organized from time to time in different localities, but accomplished little or nothing, excepting the life-saving benevolent association of New York, founded in 1819, and still in operation, but whose work has generally been in other directions from that under consideration. In the meantime the U. S. government had frequently had the life-saving question under consideration. As early as 1807 an effort was made to organize a coast survey, but it was unsuccessful; and it was not until 1832 that this most important department of the government was finally established; being followed by the organization of the lake survey in the hands of the engineer corps of the U. S. army. In 1848 congress appropriated \$10,000 to provide surf-boats and organize a life-saving service for the coast of New Jersey. With this sum eight buildings, suitably appointed, were erected; and when, in 1849, congress appropriated \$20,000 for the general purpose, a similar number of buildings was erected on the coast of Long Island, and six additional ones on that of New Jersey. In 1850, \$20,000 more, appropriated by congress, enabled the establishment of stations at other points along the coast of the Atlantic and the gulf, provided with life-boats and other material. In 1852 the reformation of the light-house system gave a great impetus to the movement towards a suitable life-saving service; a system which now operates 1336 lights on the sea-coast and inland shores, besides fog-signals, buoys, and other machinery. In the two years following 1852 congress appropriated \$42,500 to the purposes of life-saving, and the service, while being continued along the sea-coast, was also extended to the great lakes. In 1854 a law was passed by congress which increased the efficiency of this service, and from that time slight improvements continued to be made. But it was not until 1871 that the present system may be said to have been fairly organized. On April 20 in that year, congress appropriated \$200,000, and the service was reorganized, under the general direction of Mr. Sumner I. Kimball, the present (1881) superintendent. New stations were appointed

and provided; the efficiency of the *personnel* of the service was improved; and a suitable commission decided upon the selection of appliances for life-saving, which were adopted and procured. In 1873 the limits of this service were broadened, the sum of \$100,000 being appropriated by congress for this purpose. Finally, by the act of June 20, 1874, congress perfected its work. This act authorized the arrangement of the life-saving stations in complete stations, life-boat stations, and houses of refuge; created new districts with salaried officials; established a system of honors in the bestowal of medals; and arranged for the tabular collection of statistics displaying the efficiency of the service, and directing attention to places requiring protection at its hands. The storm-signal department of the signal service was now connected with the life-saving stations, through the use of an appropriation by congress of \$30,000 specifically for that purpose. The record of this season showed how admirably the service had been adapted to the purpose for which it had been organized: 1165 lives were saved on the three coasts covered by its operations, while only two were lost. The years following were marked by constant and marked improvement in the scope and the working of the service. A valuable code of signals to enable vessels in danger to communicate with the stations was adopted in 1878; a line of telegraph between capes Henry and Hatteras, and in the vicinity of the stations on the North Carolina coast, connecting with the head-quarters of the signal service in Washington, was applied to the uses of the life-saving service; and preparations were made which resulted in the adaptation of a system of telephones to the same purpose at twelve of the stations on that coast. The act of congress of June 18, 1878, organized the life-saving service into a distinct department; it having been previously associated with the revenue marine. This act also extended the annual term of service of the crews, doubled the pay of station-keepers, and authorized compensation for the voluntary life-boat service which had been established on the lakes.—The scene of the labors of the life-saving service covered, in 1871–72, the coast of Long island and New Jersey; the seasons of 1872–74, that of cape Cod in addition to these; the season of 1874–75, the coasts of New England, Long island, New Jersey, and the coast from cape Henry to cape Hatteras; season of 1875–76, coasts of New England, Long island, New Jersey, coast from cape Henlopen to cape Charles, and that from cape Henry to cape Hatteras; season of 1876–77, all the foregoing, with the addition of Florida and the lake coast; season of 1877–78, the coast of Maine, New Hampshire, Massachusetts, Rhode Island and Long island, New Jersey, cape Henlopen to cape Charles, cape Henry to cape Hatteras, eastern coast of Florida, lake coast, and Pacific coast; 1878–79, same as the last. Following is a general summary of disasters which have occurred within the scope of life-saving operations from Nov. 1, 1871 (date of introduction of present system), to close of fiscal year ending June 30, 1879:

Total number of disasters.....	797
Total value of vessels.....	\$10,722,733
Total value of cargoes.....	5,923,294
Total value of property saved....	9,510,408
Total value of property lost.....	7,099,619
Total number of persons on vessels.	8,392
Total number of persons saved.....	8,030
Total number of lives lost.....	362
Total number of persons sheltered.....	1,753
Total number of day's shelter afforded.....	4,790

Of the number of lives lost, 183 were at the disasters to the U. S. steamer *Huron*, Nov. 24, 1878, and that of the steamer *Metropolis*, Jan. 29, 1878.—At the close of the fiscal year ending June 30, 1878, there were 12 life-saving districts, covering 173 stations; 981 surfmen employed; net expenditures for the year, \$363,674.72; balance of appropriations unexpended, \$30,017.28. The *personnel* of the service included 1 general superintendent, Sumner I. Kimball; 1 assistant general superintendent, William D. O'Connor; 1 inspector of life-saving stations, capt. James H. Merryman; 2 superintendents of construction of life-saving stations, capt. John McGowan, capt. James H. Merryman; 12 assistant inspectors, 2 lieutenants, U. S. revenue marine on special duty, 12 district superintendents, 1 assistant district superintendent.

LIGAMENTS (*ante*). See SKELETON.

LIGAN. See FLOTSAM, *ante*.

LIGATURE (*ante*). The ligature had been partially applied by the Roman surgeons, but it fell into disuse during the dark ages, and was not revived till 1536–37, when the celebrated Ambroise Paré (q.v.) introduced it while in Italy with the army of marshal René de Mont-Jean. This example did not, however, suffice to make the practice general, and it was long before it was introduced into England, where, as late as 1761, it needed advocates in cases of wounded arteries. Thirty years after this, John Hunter employed the ligature in the treatment of aneurism in a new way, viz., by tying the artery at a considerable distance from the aneurismal sack, and where it was in a healthy condition. But this great improvement was coldly received.

Ligatures are applied chiefly 1. For removing tumors of various kinds, such as hemorrhoids of the rectum, and fibrous, fleshy, and erectile tumors in various

parts; 2. For arresting hemorrhage in arteries, either at the time of an amputation, or any operation in which an artery is divided, or when an artery is wounded by accident. 3. For arresting the flow of blood, to diminish either the *supply* of blood going to a part, or the *flow* of blood in an aneurismal or otherwise weakened artery.

Ligatures are of various materials, as linen thread or twine, silk, animal membrane, such as the gut of the silk-worm, deer-skin, catgut, gold, silver, platinum, or lead wire. The principles indicating the use of these various materials vary with circumstances. It is often desirable, instead of keeping a wound open, to close it immediately, in which case the ligature must be of such material that it can be left in the wound and allow of the flesh to heal over it. Linen thread or silk will not then answer, because of the irritation they would create. Fine gold and silver wire has been successfully used in such cases, the ends of the ligature being cut off short. After a while the small piece of ligature will make its way to the surface, after having fulfilled its office, or it may become covered with a cellular capsule. The older surgeons used animal membranes, but with indifferent success. Wardrop used the gut of the silk-worm, and catgut was employed by sir Astley Cooper, with a view to absorption of the ligature. In one patient of Cooper's, 80 years of age, the wound healed in four days; another in twenty, and it was supposed that the material was absorbed. Other surgeons who attempted to imitate the process failed: the catgut was often found too weak, or wanting in firmness; and sir Astley himself, after having some unsuccessful cases, abandoned the use of this material and returned to that of the ordinary hempen thread. The wire ligature now so much used, and which in many modern operations is absolutely necessary for success, is an American invention. It originated with Drs. Physick and Levert, who performed several operations with threads of gold, silver, platinum, and lead. When the ends of the ligature were cut off close to the vessels they usually became imbedded in a cellular capsule, and did not occasion irritation. But this practice also fell into disuse, to be revived in recent times with certain modifications which render it almost one of the necessary adjuncts of modern surgery. The use of the catgut ligature has also recently been revived with the very important improvement of treating it with a solution of carbolic acid.

The immediate effects on an artery of a ligature applied with sufficient force are the division of the internal and middle coats and the constriction of the outer one. See ARTERY, *ante*. An examination of the vessel a few days after will reveal the formation of a pyramidal coagulum, composed of plastic matter at its base and a fibrinous clot at its apex. The vessel at this point will also be surrounded by coagulable lymph. At the expiration of two or three months the end of the artery will be converted into a fibro-cellular cord as far up as the first branch above the ligature.

The principles involved in the application of ligatures to wounded arteries may be briefly stated in two axioms: 1. Cut directly down on the wounded part, and tie the vessel there; 2. Apply the ligature to both ends of the wounded vessel if it be divided, or, if it be only punctured, to both distal and proximal sides of the puncture; or, in other words, in either case tie the artery in two places. The principles are: if we wish to get at both ends of the vessel conveniently, we should cut directly down to the point of injury; we tie both ends of the divided vessel, or on both sides of the wound in it, because if the proximal side (that towards the heart) alone is tied, vascular connections which may exist between the distal portion of the artery and other vessels may cause recurrent hemorrhage. If it does not take place soon after the application in the form of arterial blood, venous blood will be likely to make its appearance in the course of two or three days.

At first ligatures were applied to arteries, in operations for aneurism, near the sack, and on the proximal side (that nearest the heart). The vessel so near the aneurism rarely being healthy, generally soon gave way, and the operation proved fatal. John Hunter, as above mentioned, made the improvement of tying at a distance from the tumor, and also on the proximal side, and that is still the most favorable position; but Brasdor afterwards conceived the idea of tying on the distal side, because the flow of blood may be arrested in this way, and consolidation effected in the usual way by the laminated deposit of fibrine. The proximal operation is, however, preferable when anatomical difficulties do not prevent or greatly interfere. The immediate object of applying a ligature for aneurism is to cause consolidation in the parts, thereby producing a condition which will prevent the rupture of the vessel by the heart's action. This consolidation it produces by producing coagulation of blood within the vessel, and a deposit of plastic lymph around it. In successful cases, after consolidation and formation of tissue have advanced sufficiently, the tissues give way which are included in the ligature, and this may be easily removed. The success of the operation depends upon the re-establishment of the circulation in those parts which are supplied by that portion of the vessel which is severed from its connection with the heart. This is effected by nature in establishing anastomosing circulation with collateral branches. The bleeding which may result after the ligature of an artery is called secondary hemorrhage, and may arise from the giving way of the coats of the vessel, because it may not have been properly tied, or because the condition of the patient is not such as to allow of natural coagulation of the blood.

The great operations in arterial ligature are the tying of the subclavian, innomi-

nate, carotid, and iliac arteries. See CIRCULATION, *ante*. The axillary, brachial, femoral, and smaller arteries of the limbs are frequently tied for various reasons; but sometimes success is rendered difficult, even in these minor operations, from liability to gangrene of the limb, in consequence of the deprivation of circulation; and the operation is justified where an aneurism has burst or a ligature of an already tied artery has given way. Life is sometimes prolonged for many hours and even several days, which, under some circumstances, is a matter of great importance. The ligation of arteries often demands the greatest dexterity, skill, and surgical knowledge. Tissues which lie at considerable depths require to be divided by the knife; much of the work has to be done without the aid of the sight.

The abdominal aorta has been tied in seven instances. The first operation was performed by the great English surgeon, sir Astley Cooper, in 1817, the patient surviving 48 hours. The next was by James of Exeter, in 1829, the patient living only a few hours afterwards. Murray, at the cape of Good Hope, in 1834, performed the next operation, which terminated fatally in 24 hours. Monteiro of Rio Janeiro, in 1842, had the most remarkable prolongation of life under this operation, the patient living 10 days. South of London performed the fifth operation in 1856, with 43 hours' lease of life. McGuire of Richmond, U. S. A., performed the sixth operation in 1868, the patient surviving 12 hours. Stokes of Dublin tied the artery in the seventh instance in 1869, with a fatal issue in 13 hours.

The common iliac artery, according to statistics of Dr. Stephen Smith of New York, has been ligated 40 times, with 10 recoveries. Of 14 cases in which this vessel was tied for hemorrhage, 13 proved fatal. The majority of the recoveries took place after ligation for aneurism, which constituted about one-half of the cases. The first time a ligature was ever placed around this artery in the living subject was by Dr. William Gibson of Philadelphia, in 1812, in a case of gun-shot wound. The patient died on the 13th day of peritonitis and secondary hemorrhage. It was tied in 1827 by Dr. Valentine Mott, with a successful result. The operation lasted less than one hour. It was performed on Mar. 15, and the ligature was removed on April 3 following. On May 20 the patient made a journey of 25 miles. *The internal iliac artery* was ligatured for the first time in 1812 by Stevens of St. Croix, since which it has been tied 19 times, in 6 cases with success—viz., by Arndt, Dr. White of Hudson, N. Y. (on a tailor 60 years old), Valentine Mott, Syme, Morton, and Gallozzi. *The external iliac artery* was first tied by the celebrated Dr. Abernethy of London, in 1796, in a case of femoral aneurism (Power). During the following 50 years the operation was performed in 100 recorded cases for inguinal aneurism (Norris), with a result of 73 cures and 27 deaths. In one remarkable case both external iliacs were tied, with a successful result, by Tait (Erichsen). In 1814 sir Astley Cooper had performed the operation seven times, with success in four cases. In 1860 it had been tied for aneurism of the femoral artery 43 times (Power).

Ligature of the innominate, or brachio-cephalic artery.—From a table in an essay awarded the second prize by the American medical association in 1878 to Dr. John A. Wyeth of the university of Louisville, Ky., there are recorded 16 cases of ligature of this artery, the largest of the branches of the aorta, and which divides into the right subclavian and right common carotid. One of these operations was attended with success, that by Dr. A. W. Smyth of New Orleans, in 1864, in a case of aneurism of the subclavian artery. The following note is taken from the table: "Aneurism resulted from violent stretching of the arm; three months later innominate and carotid were tied simultaneously; did well until the 14th day, when hemorrhage (16 oz.) occurred, which was controlled by compress; 15th and 16th days, continued slight hemorrhage; 17th day, wound was filled with small shot; 51st day, terrible hemorrhage; 54th day, vertebral artery tied; 55th day, shot removed from wound; patient continued to do well, and recovered." The man died 10 years afterwards of hemorrhage from the original sack of the aneurism. The first ligation of this artery was by Valentine Mott, in 1818, and marked an era in surgery. The patient survived till the 26th day. Four years later Von Graefe of Berlin performed the operation, and the patient lived till the 67th day.

Ligature of the subclavian artery.—In a report made to the American medical association in 1867 by Drs. Willard Parker, George W. Norris, J. H. Armsby, and William H. Mussey, there are tabulated 157 well-authenticated cases. The first operation was performed by Keate, in 1800, for traumatic axillary aneurism, four months after the injury. The patient recovered. The next operation was by Ramsden, in 1809, also for axillary aneurism. The patient died on the fifth day. Four other fatal operations followed, till, in 1815, Chamberlayne was successful. The eighth case was by Dr. Wright Post of New York, in 1817, which also terminated favorably, the patient recovering. The ninth and tenth cases were by the celebrated French surgeon, Dupuytren, both in 1819, one being successful and the other fatal. These early and pioneer operations are surrounded with great interest. They were careful steps in the art of surgery, taken by great men. The second American operation for ligature of the subclavian artery was by Valentine Mott, in 1830, for axillary aneurism, and was successful. Dr. Mott's second case, in 1831, was fatal on the 18th day. The first distal ligature of the subclavian artery was by Wardrop, an English surgeon, in 1827, for aneurism of the innominate. This distal operation on arteries was conceived by Brasdor, but first carried out

by Deschamps. See BRASDOR'S OPERATION, *ante*. The next operation on the distal side of the aneurism was performed by Dapuytren, in 1829, but did not result in recovery, the patient dying of exhaustion on the 7th day. There were 10 distal cases, 8 of which died. The two successful ones were by Wardrop and Heath. Between 1831 and 1844, not inclusive, ligature of the subclavian artery was performed 41 times, with 16 favorable and 25 unfavorable results. Dr. Mott's third operation for ligature of the subclavian was in 1838, and resulted in recovery. Drs. John C. Warren of Boston, Valentine Mott and A. C. Post of New York, each tied the artery with successful results in 1844, all of the patients recovering. Dr. Mott's fifth case, in 1850, was also successful, making a record of five cases of ligature of the subclavian artery, two being upon the left, the most difficult side, with only one fatal result. Dr. Willard Parker has also tied the subclavian artery five times, with but two fatal results, in one of which the patient survived till the 42d day. Of the whole 157 cases, 79 were successful and 78 fatal. The committee reported 39 additional cases, with 28 fatal results. They also remark that the subclavian artery, in its first division, has been tied 13 times without a single recovery; in its second division, 9 times, with 4 deaths; and in its third division, 174 times, with 89 deaths.

In the essay of Dr. Wyeth, above quoted, there is a tabulated collection of 286 cases of ligature of the subclavian, which he comprises in three sections: those in which the ligature was applied to the first division of the artery; those in which it was applied in the middle part of its course; and those in which the third division was the seat of operation. This report agrees with the preceding in regard to the 13 cases of ligature in the first division of the vessel. One of these cases, that of Rossi, in 1844, possesses uncommon interest, from the fact that the autopsy showed that the only artery going to the brain which was not obliterated, and therefore capable of carrying blood, was the left vertebral, and yet the patient survived six days, dying of cerebral anæmia. In its second division, the subclavian has been ligated 13 times, with four cures, the first by Dupuytren in 1819; the second by Nichols of Norwich, England, in 1832; the third by J. C. Warren of Boston in 1844; and the fourth by T. G. Morton of Philadelphia in 1866. The subclavian has been tied in its third division, that next the axilla, in 254 cases. The first was Ramsden's case in 1809. Recovery followed in 120 cases, or nearly 50 per cent.

Ligation of the common carotid artery.—Dr. Wyeth, in an essay on the surgical anatomy and history of the common, external, and internal carotid arteries, and which was awarded the first prize by the American medical association in 1878, reports 794 cases of ligature of the common carotid artery, 18 of the internal, and 91 of the external carotid. These are collected from all parts of the world, and embrace many in military surgery furnished during the late American and European wars, the records of which, until recently, have not been accessible. The common carotid artery was first tied by Abernethy in 1803, the patient surviving 30 hours. The operation was performed six times by Dr. Gurdon Buck of New York between the years 1839 and 1857. All recovered from the operation but one; and three were cured. Five operations were performed by Dr. Detmold of New York, with four recoveries, two cures, and one checking of malignant growth for several months. Dr. Frank H. Hamilton has tied the common carotid 11 times, with 8 recoveries, one cure, and one improvement. The case of cure was for aneurism. Most of the other cases were of malignant disease, in which only temporary relief was expected. Three cases were by Dr. J. C. Hutchison of Brooklyn, two of which were cured. One of these was a wound, and the other a case of severe neuralgia, for which many teeth and portions of the alveolar process had been removed. The fatal case was one of aneurism of the innominate artery, and the patient survived till the 41st day. Five operations were by Von Langenbeck, with two recoveries, including one cure. Four were by Liston, with one temporary recovery. Three were by Dr. George McClellan of Philadelphia, one for erectile tumor of orbit, one for erectile tumor of cheek, and one for vascular fungus of the dura-mater. All were cured. There are 31 cases of ligature of the common carotid given in Dr. Wyeth's table, performed by Dr. Valentine Mott, with 26 recoveries, including 9 cures and 6 improvements. Dr. A. B. Mott, son of Valentine, has performed the operation 11 times, with 10 recoveries, including 7 cures. Nunneley has tied the artery six times for aneurism of the orbit, with five recoveries, including two cures, and one decided improvement. There are 13 cases by Dr. Willard Parker. The first, in 1848, was one of epilepsy. The patient had had a portion of skull removed by the trephine, with temporary improvement; but, the attacks recurring, the carotid was tied. The patient died of some other affection 27 years after. Of the other 12 cases, 10 recovered, including 3 cured, and 3 benefited. In four there was no benefit, but they were cases of malignant disease, which demanded interference. Pirigoff has tied the artery 12 times, with 6 recoveries, including 1 cure, but they were difficult cases; three for aneurism of the innominate, others for shot-wounds and tumors. Preston, in India, tied the artery six times, with recovery in all. One was for epilepsy of 5 years' standing. There was no return of the attack for 5 months, and much improvement of the general health. Dr. Sands of New York has ligated the artery 8 times, with 5 recoveries, including 2 cures, one of which was in an operation for the removal of the lower jaw-bone. Syme has tied the artery 6 times, with 4 cures. Dr. John C. Warren of Boston tied the artery 8

times, with 8 recoveries, including 3 cures. The first operation was in 1827, for aneurism of 4 years' standing, and was successful. Dr. James R. Wood of New York has tied the artery 9 times, with 6 recoveries, including 2 cures and 2 improvements. The other cases were of a malignant nature, and incurable. Of 27 cases tabulated by Erichsen of ligature of both right and left common carotids, 19 recovered. There was an interval between the two operations of a few months; in one case of a year; and in one case of 38 years; the right carotid having been tied by Dupuytren in 1819, the left by Robert in 1857, the latter operation being soon followed by death.

In regard to the effects upon the brain of ligation of the carotids, it may be remarked that ligature of one carotid causes cerebral disturbance in more than one-fourth of the cases, and of these more than one-half are fatal. The tying of both carotids, with an interval of several days or weeks, appears not to cause more cerebral disturbance than when but one is tied. The cerebral symptoms caused by ligature of one or both carotids sometimes depend upon a diminished supply of blood, and consist of convulsive movements, syncope, and paralysis. In other cases there will be increased pressure upon the brain, followed by drowsiness, stupor, coma, and apoplexy. Inflammation is also one of the effects, usually coming on in a few hours after the operation. The lungs are also frequently affected after ligation of the carotids, as has been specially pointed out by Jobert and Miller, becoming congested, with a tendency to a low form of inflammation, in consequence of deficient innervation.

LIGHT (*ante*). Among the latest conclusions with regard to the velocity of light are those which are published in the *Annales de l'Observatoire de Paris*, vol. xiii., being an account by M. Cornu of the experiments made between the observatory of Paris and the tower of Montlhéry. The result of these experiments gave, for the velocity of light, 300,400 kilometers per second. Foucault's experiments, made in 1862, placed it at 298,000 kilometers, or 185,000 miles; and the investigations made at the naval academy, Annapolis, 1879, gave a mean between these two conclusions—186,305 miles, or 299,951 kilometers.

LIGHT (*ante*). See **UNDULATORY THEORY OF LIGHT**, *ante*.

LIGHT, **ABERRATION OF**. See **ABERRATION OF LIGHT**, *ante*.

LIGHT, **ZODIACAL**. See **ZODIACAL LIGHT**, *ante*.

LIGHT-HOUSE (*ante*). Light-houses were not constructed until some advancement was made in navigation, but beacon-fires were lighted for the guidance of the early mariners. The most celebrated ancient light-house was the Pharos (q.v.) of Alexandria, built upon a rocky point of that name which had been an islet, but was connected by Alexander the great with Alexandria by a roadway called the seven-mile mole, or *heptastadium*. The light-house was commenced by Ptolemy Soter, and finished about 280 B.C., and was regarded as one of the wonders of the world. It was about 400 ft. high, and the light which was kept burning on its top could be seen, according to Josephus, at a distance of 40 miles. It is thought to have been destroyed by an earthquake after having stood 1600 years. It was constructed in the form of the frustrum of a square pyramid, having an immense base whose dimensions are not known. The tower of Cordouan, at the mouth of the Garonne, in the bay of Biscay, is another celebrated light-house, but of modern date and still standing. It was commenced in 1584 and finished in 1610 by Louis de Foix. It stands upon a rocky ledge, which is under water except at low tide. The base is the frustrum of a cone, 135 ft. in diameter at the bottom, 16 ft. high, and 125 ft. in diameter at the top; built solid of cut stone, with the exception of a chamber in the center, 20 ft. square and 8 ft. high, containing a water cistern. A wall 12 ft. high and 11 ft. thick stands upon the margin of the upper surface of the base. The tower is 50 ft. in diameter at its base, is 115 ft. high, and is the frustrum of a cone, surmounted by a lantern dome. The entire height from the rock is 162 ft., the whole height of the tower, including the dome, being 146 feet. The first Fresnel lens ever manufactured was placed in this light-house in 1823. The Eddystone light-house in the English channel is described under the title **EDDYSTONE** (*ante*). The Bell rock light-house, off the e. coast of Scotland, is built upon a reef or rocks in the German ocean, 11 m. from the coast, nearly opposite the Tay firth. The rock upon which it stands is a red sandstone, from 12 to 15 ft. below spring tide, with from 2 to 4 ft. exposure at low tide. The structure is also of sandstone, but the outer tiers for 30 ft. high are of granite. It was designed by the celebrated Scotch engineers, Robert Stevenson and John Rennie, and constructed by the former. The erection of the second Eddystone light-house had given Smeaton much study, and his experience was taken advantage of by Stevenson in the structure at Bell rock. In form it resembles the Eddystone. The diameter at the base is 42 ft., while at the top, beneath the cornice, it is 15 feet. The stone-work is 102½ ft. high, and the whole structure, including the lantern, 115 feet. See **BELL ROCK**, *ante*. The Skerryvore light-house, built upon the Skerryvore rocks, which lie in the tracks of vessels going around the north of Ireland or Scotland from the Clyde and Mersey, was constructed by Alan Stevenson, the son of Robert. See **SKERRYVORE**, *ante*. There are many very fine light-houses in the United States, the most noted of which was erected upon Minot's ledge, off the town of Cohasset, Massachusetts bay, about 20 m. e.s.e. of Boston, and one of the most dangerous

places in the world without a signal. The difficulties in the construction of a light-house upon this rock were immense. An iron structure was first erected, being completed in 1849, which stood till April, 1851, when it was demolished by a terrific storm. The iron piles, 10 in. in diameter and sunk 5 ft. into the rock, were twisted off near the surface. In 1852 money was appropriated by congress for a new light-house, and work was commenced in 1855, but it was not till the latter part of 1857 that the first stone was laid. Four stones were laid in this year; six courses were, however, laid in 1858; and in 1859 the stone-work was completed. The whole was finished in 1860. It is a granite tower in the form of the frustrum of a cone, having a base 30 ft. in diameter, and a height of stone-work of 88 ft., the lower 40 ft. being solid. The courses are dove-tailed, and are fastened together with wrought-iron dowels. The defect in the iron Minot's ledge light-house was owing to the stinted outlay. Had three or four times as much money been expended on it, so that it could have been much broader at the base as well as higher, it would doubtless have been standing to-day. The present stone structure is a fair model of engineering, and will probably resist the waves for centuries. It possesses the advantage, which all solid or almost solid stone structures must have over iron framework, of a vastly greater amount of inertia, an important element of resistance to the waves. Its construction is said to have offered a more difficult problem than that of Bell rock or Skerryvore, one reason being that its foundation is deeper beneath the surface. The light-house at Spectacle reef, in the northern part of lake Huron, was built not only to resist waves, but ice-fields, often covering thousands of acres and moving at the rate of 2 or 3 m. per hour. That the structure should be able to withstand this force it was so designed as to cause the ice to be broken and piled into a protecting barrier. The tower is the frustrum of a cone, 32 ft. in diameter at the base, and 18 ft. just beneath the cornice at a height of 80 feet. The whole height of stone-work is 93 ft. above the base, which is 11 ft. below the surface of the water. The tower is solid as high as 34 ft., above which it contains 5 stories, each 14 ft. in diameter. The work was commenced May 1, 1870, and the light was first used June 1, 1874. The cost was \$375,000. The first *cast-iron* light-house ever erected was at Point Morant, Jamaica, in 1842. The tower is built of 9 tiers of plates three-quarters of an in. thick and 10 ft. high, held together by bolts and flanges on the inside. The tower is filled in with masonry and concrete to the height of 27 feet. It rests upon a foundation of granite and rises to a height of 96 feet. It is 18½ ft. in diameter at the base, and 11 ft. at the top. A modern form of light-house is constructed on what is called the "screw-pile" system, an invention of Alexander Mitchell, who, with his son, laid the foundation of the light-house on Maplin sand, at the mouth of the Thames, England. Two similar structures followed, Chapman head in 1849 and Gunfleet in 1850, also near the mouth of the Thames. Other screw-pile lights were afterwards erected in different parts of the kingdom. The great feature of the screw-pile is that the piles upon which it rests are in the form of screws and are driven in the sand or soil to a sufficient depth in the manner of a corkscrew. The first screw-pile light-house erected in the United States was by Col. Hartman Bach, U. S. E., at the mouth of Delaware bay, 8 m. from the ocean, in 1847-50, where it stands at the present time in good condition, although in an exposed place, being often acted against by immense cakes or fields of ice which come down the Delaware and move to and fro with the ebb and flow of the tide. It is surrounded by an ice-breaker composed of screw-piles driven independently of the tower. The screw-pile light-house at Sand Key, Florida reefs, is supported on 16 piles, with an auxiliary pile in the center to support the staircase, making in all 17. They are 8 in. in diameter, with a screw of 2 ft. in diameter at the lower ends, which are bored 12 ft. into the reef. The framework of the tower consists of cast-iron tubular columns framed together, having wrought-iron ties at each joint, and braced diagonally on the faces of each tier. The keeper's house is supported by cast-iron girders and joists 20 ft. above the foundation. The structure is 120 ft. above the level of the water. The foundation is 50 ft. in diameter. Over 50 such light-houses have been erected in various parts of the United States.

LIGHT-HOUSE BOARD OF THE U. S., a body organized in accordance with an act of congress, approved Aug. 31, 1852, and having the control and management of all lights, buoys, beacons, etc., on the coasts of the United States. It consists of eight persons, viz., two officers of high rank in the navy, two officers of the corps of engineers, two civilians of high scientific attainments, an officer of the navy, and an officer of the corps of engineers—the two latter serving as secretaries. The board as thus constituted is attached to the office of the secretary of the treasury, who is *ex-officio* president of the same. A chairman, elected by the members from their own number, is chosen to preside in the absence of the president *ex-officio*. The board is required to meet four times a year, and the secretary of the treasury is empowered to call it together whenever, in his judgment, the exigencies of the service may require a meeting. It actually meets almost every week in the year. The coast and the waters of the country are divided into districts, each of which is served by an officer of the army or the navy in the capacity of light-house inspector, and other officers are employed from time to time, according to the exigencies of the service. The different subjects requiring attention are first referred to standing committees, whose duty it is to investigate and report

to the board what action, if any, is required. The two secretaries perform all routine and general administrative duties under the orders and regulations of the board.

LIGHTNING (*ante*). The abbé Nolet is said to have been the first to remark the similarity of phenomena in discharges of lightning and of the electrical machine, but there was no experimental determination of the identity of their nature until Benjamin Franklin made his celebrated investigation of the subject by the use of a kite at Philadelphia in 1752. Three years previous to this, however, he made some interesting remarks upon the subject in his *Observations on Electricity*, showing that his mind had comprehended the causes even before he made his demonstrative experiments. He says: "Where there is a great heat on the land in a particular region the lower air is rarefied and rises; the cooler, denser air above it descends; the clouds in the air meet from all sides and join over the heated place; and if some are electrified, others not, lightning and thunder succeed and showers fall. Hence, thunder gusts after heats, and cool air after gusts. As electrical clouds pass over a country, high hills, trees, towers, chimneys, etc., draw the electric fire, and it is therefore dangerous to take shelter under a tree during a thunder gust. It is safer to be in the open fields for another reason. When the clothes are wet, if a flash, in its way to the ground, should strike your head it may run in the water over the surface of your body, whereas if your clothes were dry it would go through the body." Again: "Now, if the fire of electricity and that of lightning be the same, as I have endeavored to show in a former paper, and a tube of only 10 ft. long will discharge its fire at 2 or 3 in. distance, an electrified cloud of perhaps 10,000 acres may strike and discharge on the earth at a proportionally greater distance." Speaking of the discharging power of points he says: "May not a knowledge of this power of points be of use to mankind in preserving houses, churches, ships, etc., from the stroke of lightning by directing us to fix, on the highest parts of those edifices, upright rods of iron made sharp as a needle, and gilt to prevent rusting, and from the foot of the rods a wire down the outside of the building into the ground, or down round one of the shrouds of a ship, and down her sides till it reaches the water? Would not the pointed rods probably draw the electric fire silently out of the cloud before it came near enough to strike, and thereby secure us from the most sudden and terrible mischief?" He proposed various experiments, and, acting under his instructions, Dalibard had drawn electric sparks from an iron rod 40 ft. high at Marly in France, and had charged Leyden jars with the apparatus, May 10, 1752. Franklin did not make his kite-experiment till more than a month later, viz., June 15. It was natural that these experiments should be repeated all over the civilized world. Prof. Richman of St. Petersburg was killed, in the summer of 1753, by a bolt of lightning in the form of a blue ball as large as a man's fist which leaped from the insulated conductor to his head, which was about a foot distant. His companion was struck senseless and a door was torn from its place by the stroke. In the experiment of M. Romas of Nerac, France (*see ante*), which has been said by some to antedate Franklin's, he used a kite of about 18 sq. ft. surface, with a copper wire wound around the string, and an insulating silk cord at the ground end, near which an iron tube was placed as a secondary conductor. When the kite was at a height of 550 ft. during a storm, flashes of fire darted to the earth attended by loud explosions, and all light bodies in the vicinity were alternately, positively and negatively, electrified and propelled in various directions.

It has been shown by Cavallo, De Saussure, and others that the electrical condition of the atmosphere, in comparison with that of the earth, is positive; also, by Laplace, Lavoisier, Volta, and De Saussure that the cause of atmospheric electricity is evaporation from the surface of the earth; but, according to the experiments of Pouillet, evaporation does not produce opposite electrical conditions unless accompanied by chemical decomposition or separation of vapor from saline solutions, or from oxidizing surfaces or the leaves of growing plants. Currents of wind rushing over opposing objects, occasioning disturbance of electric equilibrium, are among the chief causes of atmospheric electricity, the electricity passing with the wind to elevated regions; or, on the two-fluid hypothesis, positive electricity being carried upwards, while the negative passes to the earth. In regard to the production of the various kinds of lightning and thunder, they may be explained according to a variety of circumstances. To account for the variations in tone and intensity of a thunder-clap as heard at a certain point—that is to say, to explain what conditions were present and what form or dimensions the discharge had—would be very difficult, perhaps impossible, from the fact that it is impossible to appreciate the extent of the process and the direction of the discharge or discharges. The reverberation of sound may be the result of one discharge, which is echoed from peak to peak or from crag to crag and probably from cloud to cloud, although the power of clouds to reflect sounds has not been determined. There may be a succession of discharges from different portions of different clouds to those of others, one explosion being succeeded by another in consequence of changes of electrical conditions in various parts of the celestial and terrestrial apparatus. The increased intensity of a roll of thunder is probably to be accounted for in this way. The first sounds may be produced by successive minor discharges, causing electrical conditions between two large masses of clouds, or between a large mass and the earth, which result in the exchange of large quantities of electric fluid, or the descent of a powerful bolt to the earth. Although

many phenomena of electricity are well known, and the electricity of chemical batteries can be measured and rendered serviceable, still its real nature is not known. It is not positively determined whether it is an imponderable body, an imponderable force, or merely a phenomenon resulting from the conditions of the matter with which it is connected. Until its nature be determined it cannot be said whether a ball of lightning is a moving mass of electrical matter, or of other matter in a peculiar electrical state. There is something wonderfully interesting and inexplicable in some of these moving masses of apparent fire. The ordinary laws of electrical attraction and repulsion will scarcely serve to explain their various freaks. They often seem as if propelled from behind, in the manner of an ordinary projectile; and the manner in which they pass into dwellings and demolish walls may indicate that they are driven against bodies, and not attracted by them.

LIGNE, CHARLES JOSEPH, Prince de, 1735-1814; b. in Brussels, and descended from a wealthy and powerful Belgian family; entered the Austrian army in 1752, where he served with distinction through the seven years' war. In the reign of Joseph II. he held high military and diplomatic positions, and was a great favorite in all the European courts. During the reign of Leopold he fell into disgrace, owing largely, no doubt, to his son's participation in the Belgian insurrection of 1790, after which event he was never again in the public service, but lived in retirement at Vienna, employing himself in literary pursuits. Of his miscellaneous works in 34 volumes, which appeared in 1795-1811, Malte Brun has given selections in 2 volumes. His memoirs and letters have considerable historic value.

LIGNITE (*ante*), named from *lignum*, wood, a kind of coal, resembling, probably the condition of hard coal when in a state of transition or process of manufacture. It has no definite chemical composition. Some beds present a decidedly ligneous structure in the upper layers, and a true coal character below. When wood is buried in water or earth, it decomposes by the slow process of oxidation, or *eremacausis*, with the formation of carbureted hydrogen, carbonic acid, carbonic oxide, water, petroleum, etc., after a time leaving a denser, darker substance. After a long time it becomes black and exhibits a pitchy, somewhat conchoidal fracture. It is then lignite. This kind of coal is chiefly found in the cretaceous and tertiary formations, and in some localities forms immense beds, equal, perhaps, in extent to the beds of the carboniferous period. Lignite occupies an intermediate position between peat and hard and bituminous coal, and in favorable conditions in the process of ages peat will become lignite, and the latter will be converted into bituminous coal or anthracite. It is probable that most of the coal in China and India is more or less lignitic in its nature, as is the case of that of western America. Lignite is found also in Greenland and arctic America, and also in Central and South America. In Europe lignites have been mined for a long time, and are used not only for heating dwellings and other domestic purposes, but for generating steam in locomotives and furnaces. The following analyses indicate the variable composition of lignite. One specimen from France contained, in round numbers, the following proportion of constituents: Carbon, 70; hydrogen, 6; oxygen, 18; nitrogen, 1; ashes, 5. Another specimen, also from France, contained, carbon, 64; hydrogen, 4.6; oxygen, 17; nitrogen 1; ashes, 13.4. Another specimen from Switzerland contained, carbon, 70; hydrogen, 5; oxygen, 20.5; nitrogen, 1.3; ashes, 3.2. Another specimen from Siberia contained, carbon, 47.5; hydrogen, 4.5; oxygen, 32; nitrogen, 1; ashes, 15. Another specimen from Germany contained, carbon, 70; hydrogen, 3.2; oxygen, 7.6; nitrogen, 1; ashes, 15.5. The last specimen shows a considerably less proportion of oxygen than the others, but that of carbon is scarcely greater than in the other specimens. It is to be presumed that its heating power does not differ much from theirs. The principal deposits of lignite in the United States are in New Mexico, Colorado, Utah, Nevada, California, Oregon, Wyoming, and Alaska. In New Mexico the beds are all in the cretaceous formation, and chiefly in the lower portion. In Colorado and Wyoming the beds occupy a space not less than 50,000 sq. m., the strata varying in thickness from 1 to 30 feet. Many of these lignites are now mined in Colorado, and they resemble in quality the best brown coals of the old world. Some lignites, as in Trinidad, and in Utah, near Salt Lake City, are capable of being coked and used in smelting. The lignites of California are cretaceous, and many of them find their way to San Francisco. On the coast of Oregon the lignites belong to the tertiary period, and have been mined for several years. An analysis of a specimen of coal from Mount Diablo, Cal., by H. S. Munroe of the N. Y. school of mines, gave the following results: Carbon, 59.724; hydrogen, 5.078; oxygen, 15.697; nitrogen, 1.008; sulphur, 3.916; water, 8.940; ash, 5.637. A lignitic anthracite from Sonora gave, carbon, 84.103; hydrogen, 0.852; oxygen, 2.137; nitrogen, 2.80; sulphur, 0.229; water, 5.191; ash, 7.204. This is evidently a superior coal, considered as a lignite. There are occasionally seams of lignite along the Atlantic coast in tertiary formations, mingled more or less with clay.

LIGURIA (LIGURIAN REPUBLIC, *ante*), in ancient geography, a part of n. Italy. As defined in the time of Augustus it embraced the territory from the Ligurian sea across the maritime Alps to the Po in the n., and from the Varus in the w. to the Macra in the east. At a very early period the Ligures possessed a larger territory, extending far into

Gaul, on the western side of the Rhone. Their origin is unknown, but they were a warlike and enterprising people. They were subjugated by the Romans about 125 B.C., Liguria forming the nucleus of the Roman province of Gaul.

LIL'BURNE, JOHN, 1618-1657; a Protestant agitator of England. Imbibing opinions in opposition to the English church, at the age of 18 he went to Holland to procure the printing of a pamphlet against the bishops. This he aided to circulate secretly, was exposed to the authorities, tried in the court of the star-chamber, condemned in Feb., 1637, to receive 500 lashes, to be pilloried and confined in prison, fined £500, and required to give security for good behavior. His bold courage before the judges gave him the *sobriquet* of "Freeborn John." Given his liberty in 1640 he placed himself at the head of his sympathizers and demanded that lord Stratford should be arraigned. He was again arrested and taken before the house of lords; but such was the pressure of public opinion in his favor that the parliament ("long parliament") released him, and subsequently declared his punishment to have been illegal, barbarous, and tyrannical; and recompensed him for his imprisonment and injuries by a payment to him of £3,000. He joined the army of the parliament against Charles I., was taken prisoner, and would have been hung, had not the parliament's general, the duke of Essex, threatened to hang royalist prisoners in retaliation. He soon became dissatisfied with the Presbyterian leaders, and published charges and denunciations even against Cromwell. The latter procured his trial before a commission, by whom he was acquitted. Emboldened by this, he began a violent agitation against Cromwell, read in public a pamphlet entitled *England's New Chains*, and in consequence was committed to the Tower. Thence he poured out political pamphlets which gave him great popularity with the people. He was again brought to trial, but the pressure of popular opinion in his favor determined his acquittal. But Cromwell soon after secured his condemnation and banishment for a vicious attack on Kaslering. He then resided in Brussels and Amsterdam. After the dissolution of the "long parliament," he returned to England without permission, and Cromwell sought to imprison him in the Tower; but it ended in his remaining in England as a prisoner at large. Towards the close of his quarrelsome life he espoused the doctrines of the Friends, or Quakers. Judge Jenkins said of him: "Were John Lilburne the only man living on the earth, Lilburne would dispute with John, and John with Lilburne." An account of his trials, entitled *Truth's Victory over Tyrants*, was published in 1649.

LILLEBONNE, a small t. of northern France on the river Bolbec, 40 kilometers e. of Havre; pop. 4,800; has manufactures of thread, cotton, and linen fabrics. William the conqueror gave it importance by the construction there of a *château-fort*. Old Roman roads diverge from it to Rouen, Paris, Evreux, and Dreux. It was a city of importance under the Romans, as attested by considerable ruins, among which are those of a theater 340 ft. long.

LILLERS, a small t. in the n. of France on the river Mare; pop. 6,600. Principal industries, the manufacture of shoes for exportation, of linens, and of beer and distilled liquors.

LILLIBURLERO, the refrain of an Irish ballad, which appeared before the revolution of 1688, and is said to have exercised a profound influence, going far to precipitate that outbreak. The words "lilliburlero and bullen-a-lah" (Irish) are said to have been employed by the Irish Roman Catholics during the Protestant massacres of 1641. The ballad in question, alleged to have been written by lord Wharton, took up these words and employed them to fire the hearts of the king's soldiers.

LIL'LO, GEORGE, 1693-1739; an English dramatist of vigorous style and of a moral tendency in advance of his time; the representative of the domestic manners and tastes of the middle classes. His plays of *Silvia* and *George Barnwell* both appeared in 1731. The latter was extremely popular, and greatly delighted queen Caroline. It was imitated by Saurin and played in France under the title of *Beverly*. His other works are the *Christian Hero*; *Marina*; and *Elmerick*. These works were collected and published in 2 vols. 12mo. in 1772.

LILLY, JOHN. See **LYLY**, *ante*.

LILYBÆ'UM. See **MARSALA**, *ante*.

LILYE, or LILLY, WILLIAM, 1466-1523; a celebrated English grammarian; graduated at Oxford, and immediately afterwards traveled in the orient to perfect his knowledge of the Greek language. He passed five years at the ancient city of Rhodes, then resided in Rome, and returned to London in 1509. There he opened the first public school for teaching the dead languages. He became, soon after, the first master of St. Paul's school, and in the intervals of his duties edited and published a work known as *Lilly's Grammar*; to which dean Colet, the great Erasmus, and cardinal Wolsey each contributed a part. It was a quarto volume, published in London in 1513, and is said to have passed through more editions than any similar work.

LIMA (*ante*). The approaches to the city are by six gates; and the principal alameda, an avenue of great beauty on the road to Callao, is one of the most striking and impressive thoroughfares on the continent. The general impression made by the city

on nearing it is more in its favor than on a closer examination. At a distance, its spires and domes glitter in the sun, and its architecture, Moorish in character, gives it a very picturesque appearance. But, excepting the public buildings, the houses are low, and irregularly built, though the streets are regular and attractive. The plaza mayor, or great square, has a handsome fountain in the center, and is the principal business locality. Here are the palace of the president of Peru, the cathedral, and the archbishop's palace; the old palace of Pizarro is on the south side, and on the west is the town-hall. An immense amphitheater for bull-fighting is a feature of one of the alamedas. The longest side of the city, which is in the form of a triangle, extends along the bank of the river Rimac. Through the middle of almost every street a stream of water is turned each morning, designed to carry away whatever refuse collects from the houses; and this process, combined with the service of the buzzards, comprises the public scavenging of the city. The monasteries and convents of Lima, of which there were at one time a large number, have nearly all been suppressed. The convent of San Francisco, however, is a large monastic establishment, covering nearly seven acres of ground; there are also many parish churches and 22 chapels. The university of Lima was the first educational establishment of the kind in the new world. It has fallen into decay to some extent, but contains a valuable library of about 20,000 volumes. Lima was founded by Pizarro in 1535, and called Ciudad de los Reyes. It has been frequently visited by earthquakes, one of which, in 1746, destroyed many buildings. The city has recently (Jan., 1881) been captured by the Chilian forces in the process of the lamentable war between Peru and Chili.

LIMB, the border or edge of the disk of a heavenly body, particularly the sun and moon. The name is applied to the graduated circle of an instrument for measuring angles. A concentric arc used for subdividing the spaces or degrees on the limb, is called a vernier. There are two limbs on a theodolite, one for measuring horizontal and another for measuring vertical angles, called respectively the horizontal and the vertical limb. The graduated staff of a leveling rod is often called a limb, the graduated line on the vane being called the vernier.

LIMBO. See **LIMBUS**, *ante*.

LIMBORCH, PHILIPPUS VAN, 1633-1712; b. Amsterdam; was educated in theology and in 1657 made minister at Gonda, and ten years later professor of theology at the Remonstrant college of Amsterdam. He was a careful student of the doctrines of Arminius, and wrote *Theologia Christiana*, an elaborate and profound analysis of them, published 1686 and highly praised by Hallam. He was in frequent correspondence with John Locke.

LIMBURG-ON-THE-LAHN. A t. in the duchy of Nassau annexed to Prussia in 1866; seat of the Catholic bishopric of Fribourg; pop. about 5,000. It is one of the most ancient cities of Germany. The "Chronicles of Limbourg," in one of its libraries, is one of the oldest and most important historical manuscripts of Europe. The cathedral of St. George, built in the 13th c. on a crag overlooking the valley of the river, is remarkable for its picturesqueness. Near this town the French gen. Jourdan was defeated by the Austrians in 1796.

LIMESTONE, a co. in n. Alabama, having the state line of Tennessee for its n. boundary, the Tennessee river for its s., and for its s.w. the Elk river, flowing across the n.w. portion to enter the Tennessee; is drained by various other affluents; 650 sq.m.; pop. '80, 21,600—21,522 of American birth, 9,962 colored. It is intersected centrally from n. to s. by the Nashville and Decatur railroad, and crossed in the s.e. section by the Memphis and Charleston railroad, joining at the Tennessee river. It contains vast quantities of limestone rock, from which the county is named. Its surface is hilly, particularly in the n., and equally divided into prairie and woodland. Cash value of farms in '70, \$1,816,510, numbering 1362. Its products are live stock, every variety of grain, tobacco, cotton, wool, sweet potatoes, honey, sorghum, and the products of the dairy. Seat of justice, Athens.

LIMESTONE, a co. in e. Texas, intersected from n. to s. by the Houston and Texas Central railroad; 950 sq.m.; pop. '80, 16,246—15,959 of American birth, 3,171 colored. It is drained by the head waters of the Navasoto river. Its surface is undulating, spreading in sections into broad prairies, with little timber. It has immense quantities of limestone rock, hence its name. Its soil is strong and fertile, producing oats, corn, cotton, wheat, sugar cane, wool, sweet potatoes, and live stock. Cash value of farms in '70, \$1,121,390, numbering 483. Seat of justice, Groesbeck.

LIMITATION, in law (*ante*). The "statute of limitations" was passed in the 23d year of James I. (1623), and its provisions have been substantially incorporated into the statutes of the American states. Actions in regard to real property must be brought within 20 years after the right of entry or of action accrues. If the person having such right be under any disability at the time such right accrues, the statute will not run till such disability be removed. An uninterrupted adverse possession for 20 years under a claim of right will bar the real owner of his rights in the property. Such possession must be known to the real owner, either actually or constructively, and must be without his consent; and the claim must be well known, and of a definitely bounded and

ascertainable estate. Properly speaking, a mortgager's possession is not adverse to that of the mortgagee, as the relation between them is more in the nature of a tenancy; and such possession is, in the absence of evidence to the contrary, supposed to be permissive. But where either mortgager or mortgagee has been in possession for the statutory time, without any interest being paid or account rendered, and without any acknowledgment of or reference to the rights of the other, the right of the mortgager to redeem or of the mortgagee to foreclose will generally, in the absence of fraud, be barred. The limitation to most personal actions is six years, so that an adverse possession of personal property for six years creates a good title. In the case of slander for words actionable without proof of special damage, the statutory limitation is two years. The statute in all cases begins to run from the time the action accrues; which is, in contracts, upon breach of the same; in trover, the time of the tortious conversion, etc. On a promissory note, the statute begins to run at the expiration of the days of grace if grace be allowed, or on sight, notice, demand, or so many days after, according to the terms of the note. But on a note payable so many days from demand, etc., the demand, etc., must be made within six years. An action begins upon the reception of the writ by the sheriff or deputy, and if the service of the writ be deficient through such officer's fault, or any inevitable accident, an additional time of a year or thereabouts is generally allowed by statute to the plaintiff to bring his action again. In libel and assault and, as has been seen, in slander, the period of limitation is fixed at two years. In many of the United States this latter limit is fixed also for actions against executors and administrators, though in general equity exempts trust, from the operation of the statute. A new promise to pay a debt takes it out of the statute, but such a promise will not prevent the application of the statute to the interest on the principal of such debt.

LIMITED LIABILITY. See **JOINT-STOCK COMPANIES**, *ante*; and **LIABILITY**.

LIMONITE. See **HEMATITE**, *ante*.

LIMOUSIN, a small province of old France, now comprised in the departments of the Haute-Vienne and Correze, Limoges being the principal town of the former and Tulle of the latter. It is a hilly, elevated plateau, about 1700 ft. above the sea, traversed by spurs or ridges branching from the mountains of Auvergne, and furrowed by numerous small streams having their sources in the hills, and flowing to the bay of Bi-cay. The surface is mainly granitic, often sterile. The climate is moist and changeable. The poverty of the soil has always enforced continual migrations of its inhabitants, whose peculiar language, allied to the Spanish, always marks their nativity.

LIN'ACRE, THOMAS, 1460-1524; b. Canterbury; studied at Oxford; became fellow of All Souls' college in 1484; went to Florence and studied Greek and Latin with the ablest teachers; removed to Rome and applied himself to natural philosophy and medicine, studying chiefly the works of Aristotle and Galen, and translating some of Galen's treatises. Returning to England he received the degree of D.D. and the appointment of professor of physic from Oxford university; was called to the court by Henry VII. and made physician and tutor to prince Arthur; was subsequently physician to Henry VII., Henry VIII., and princess Mary. He founded two lectures on physic in the reign of Henry VIII. at Oxford, and one at Cambridge. In 1518, through his influence, the college of physicians in London was founded, and he was its first president, holding the office till his death. With Colet, Lily, Grocyn, and Latymer he restored classical learning in England. Late in life he studied divinity, and was in 1509 rector of Mersham and prebend of Wells; in 1518 was prebend and in 1519 precentor in the church of York. His most celebrated works are his Latin translations from Galen, among which are *De Temperamentis*; *De tuenda Sanitate*; *De Methodo Medendi*. His other works are a translation of *Proclus de Sphæra*; *De Emendata Structura Latini Sermonis Libri Sex*. He was buried in St. Paul's cathedral, where Dr. Caius erected a monument to his memory. In his literary character he held a very high rank, and as a physician his skill was unsurpassed.

LINCOLN, a co. in s.e. Arkansas, having the Arkansas river, near its confluence with the Mississippi, for its n.e. boundary, is traversed diagonally by the bayou Bartholomew; 600 sq.m.; pop. '80, 9,255-9,198 of American birth, 5,044 colored. Its surface is level; the rich, nutritious grass of its prairies, being shaded for long distances near the water-courses by groves of ash and cypress, affords good pasturage; and the soil produces cotton and corn. It is intersected by the Little Rock, Mississippi River and Texas railway in the n.e. section. Seat of justice, Star City.

LINCOLN, a co. in s.e. Dakotah, having the Big Sioux river for its e. boundary, separating it from Iowa, and for its s.w. border the Vermillion river; about 550 sq.m.; pop. '80, 5,897-4,118 of American birth. It is thinly timbered; its plains producing buckwheat, barley, the products of the dairy, oats, corn, and wheat. Some attention is paid to the raising of live stock. Seat of justice, Canton.

LINCOLN, a co. in n.e. Georgia, having the Savannah river for its north-eastern border, separating it from the state of South Carolina, and Broad river, a tributary of the Savannah, for its northern boundary; is also drained by Little river, its southern and south-eastern boundary line; 300 sq.m.; pop. '80, 6,412-6,405 of American birth, 4,157 colored. Its surface is hilly, comprising large tracts of woodland; the quality of the

soil varying in different sections, producing in the most favorable localities wine, sweet potatoes, wool, oats, wheat, cotton, and Indian corn, and offering fine pasturage for stock. It produced in '70, 1865 lbs. of honey. It contains vast quantities of granite; gold is found, iron ore, and a kind of slate used for hones. It had in '78, 1 gold quartz mine, employing 11 men, with a capital of \$30,000 and annual product of \$7,000. Seat of justice, Lincoln.

LINCOLN, a co. in n. Kansas, watered by the Saline river, an affluent of the Kansas river, is also drained by Wolf creek and affluents of the Solomon river; 720 sq.m.; pop. '80, 8,582. Its surface spreads out into limitless fertile plains, in many portions covered with timber, in others sinking into salt marshes or rising into low hills. Magnesia is a component part of the limestone that forms the foundation of the soil, which produces corn, wheat, wool, dairy products, and affording fine pasturage is well adapted to the raising of stock. Seat of justice, Lincoln.

LINCOLN, a co. in s. Kentucky, watered by Dicks river, an affluent of the Kentucky, and the head-waters of Green river, is intersected by the Knoxville line of the Louisville and Nashville railroad, forming a junction at its county seat, in the n.e. section, with the Richmond and Stanford branch; also the Cincinnati Southern in the w. and s.; 400 sq.m.; pop. '80, 15,079—14,992 of American birth, 3,908 colored. Its surface is hilly and thinly timbered; its soil, of a calcareous formation, producing the blue grass of the prairie, flax, maple sugar, sorghum, sweet potatoes, tobacco, wool, corn, rye, wheat, and the products of the dairy. It produced in '70, 10,730 lbs. of honey. Cattle, sheep, and swine are raised. Cash value of farms in '70, \$4,002,549, numbering 597, including one of 1000 acres. It had in '70, 64 manufacturing establishments, with a capital of \$90,350, and an annual product of \$258,677. Among its industries are the manufacture of woolen goods, saddlery, and harness. It has distilleries, saw mills, and steam grist mills. Seat of justice, Stanford.

LINCOLN, a parish in n.w. Louisiana, formed 1873; is drained by the head-waters of the Dugdemona river, the Saline bayou, the bayou d'Arbonne, and numerous affluents of the Washita river; about 550 sq.m.; pop. '80, 11,075—11,048 of American birth, 4,900 colored. It is composed of portions of the counties of Bienville, Jackson, Union, and Claiborne. Its surface is uneven, and its soil has all the elements of fertility. Seat of justice, Vienna.

LINCOLN, a co. in s. Maine, having numerous inlets of the Atlantic ocean, which lies on its s. boundary, has the Kennebec river, navigable 44 m. from its mouth, for its s.w. border; 500 sq.m.; pop. '80, 24,809—24,330 of American birth, 46 colored. It is drained by the Sheepscot river, flowing through it from n. to s., emptying into the ocean not far from Bath. It has also Damariscotta lake, smaller lakes in the extreme n., Damariscotta river, the outlet of the lake, navigable by the largest ships, and the bays of its southern border. Its surface rises into long, high hills that sink into deep valleys. It is thinly timbered, and the soil under cultivation is very fertile, producing every variety of grain, wool, dairy products, honey, and maple sugar. Cattle, sheep, and swine are raised. Its commercial facilities are unsurpassed, its harbors being spacious, safe, and accessible. Much attention is paid to fishing, steamboats being used, with which large quantities of fish are taken with the seine, and pressed into oil in establishments for that purpose. It has also curing and packing establishments. Among its industries are ship-building and repairing, the manufacture of machinery, bricks, matches, lumber, sails, and wool; it has also wool-carding and cloth-dressing mills, and steam saw and flour mills. Cash value of farms in '70, \$4,488,419, numbering 3,197. It had in '70, 309 manufacturing establishments, employing 1332 hands, with a capital of \$587,280, and an annual product of \$1,018,705. It is traversed near the coast by the Knox and Lincoln railroad from Rockland to Bath. It has an active coast trade, and ice is largely exported to southern ports. Seat of justice, Wiscasset.

LINCOLN, a co. in s.w. Minnesota, having the state line of Dakota for its western boundary, is intersected in the extreme n.e. by the Winona and St. Peter railroad; about 540 sq.m.; pop. '80, 2,945—1876 of American birth, 2,942 colored. It is watered by the Yellow Medicine river, other tributaries of the Minnesota river, by lake Benton, 8 m. long, in its southern section, and a few smaller lakes. Its surface is level in the n., and rough and hilly in the extreme south. It has a fertile soil. Seat of justice, Marshfield.

LINCOLN, a co. in s.w. Mississippi, drained by the head-waters of the Bogue Chitto, a confluent of Pearl river, is intersected centrally by the Chicago, St. Louis and New Orleans railroad; 600 sq.m.; pop. '80, 13,547—13,407 of American birth. Its surface is level and is diversified by fertile plains and immense forests of magnolia, beech, and useful timber. Its soil is adapted to the production of live stock, rice, oats, corn, tobacco, cotton, wool, sweet potatoes, wine, honey, sugar cane, and the products of the dairy. It had in '70, 44 manufacturing establishments, employing 175 hands, with a capital of \$92,332, and an annual product of \$152,737. Seat of justice, Brookhaven.

LINCOLN, a co. in e. Missouri, having the Mississippi for its eastern boundary, separating it from Illinois, is drained by the Cuivre river; 600 sq.m.; pop. '80, 17,443—16,606 of American birth, 2,144 colored. It is watered by Eagle fork and Big creek. Its surface is hilly and liberally supplied with building timber. Its soil, having an

understratum of limestone, is very fertile in the valleys, being adapted to the raising of live stock, tobacco, every variety of grain, wool, sweet potatoes, dairy products, sorghum, maple sugar, and flaxseed. It produced in '70, 17,172 lbs. of honey. Cash value of farms in '70, \$5,133,736, numbering 2,129, including 4 of 1000 acres and over. Value of live stock in '70, \$1,387,573. It had in '70, 94 manufacturing establishments, with a capital of \$111,120, and an annual product of \$270,285. Among its manufactories are flour and saw mills, tanneries, leather currying establishments, plow factories, tobacco factories, wool-carding and cloth-dressing mills. Seat of justice, Troy.

LINCOLN, a co. in s. Nebraska, having the North Platte river for its northern boundary, is traversed by the Republican river; about 2,592 sq.m.; pop. '80, 3,632—3,032 of American birth, 6 colored. Its surface is level and poorly timbered. The soil of the famous Platte valley is light and eminently productive, affording excellent facilities for stock raising. It is intersected by the Union Pacific railroad. Among its manufactories are breweries, cheese factories, and the railroad repair shops. Seat of justice, North Platte.

LINCOLN, a co. in s.e. New Mexico, organized 1869; having the state line of Texas for its e. boundary; traversed by the Pecos, the Rio Bonito, and numerous small streams; 13,000 sq.m.; pop. '70, 1803—1686 of American birth. Cash value of farms in '70, \$139,770, numbering 368, none under 10 acres or over 500. Its surface is equally divided into mountain and prairie, with few trees, the eastern portion being a part of the great Staked Plain and the w. occupied by ranges of the White mountains and the Gaudalupe. Its soil when irrigated is fertile, and produces wheat, Indian corn, barley, and oats. It is largely taken up by Indian reservations, but has much tillable land. Seat of justice, Lincoln.

LINCOLN, a co. in w. North Carolina, having the Catawba river for its eastern border, is intersected centrally by one of its branches called the Little Catawba; 250 sq.m.; pop. '80, 11,061—11,051 of American birth, 2,881 colored. Its surface is uneven and equally divided into tillable lands, and hard-wood forests. It contains valuable deposits of iron ore. Gold is found in the eastern portion and on the banks of the Little Catawba. Its soil is fertile and adapted to the raising of buckwheat, oats, corn, rye, wheat, tobacco, cotton, wool, sweet potatoes, wine, honey, sorghum, flax, live stock, and the products of the dairy. It had in '70, two mining establishments of iron ore, employing 40 hands, with a capital of \$43,000, and an annual product of \$8,800. It had in '70, 65 manufacturing establishments, employing 294 hands, with a capital of \$184,625, and an annual product of \$319,025. Its industries are represented by manufactories of paper, cotton goods, pig iron, etc. Seat of justice, Lincolnton.

LINCOLN, a co. in s. Tennessee, having the state line of Alabama for its southern boundary, is traversed by the Elk river, and has the terminus of the Decherd to Fayetteville line of the Nashville, Chattanooga, and St. Louis railway, at its co. seat; 720 sq.m.; pop. '80, 26,960—26,900 of American birth, 6,316 colored. Its surface is uneven, well wooded with locust, poplar, and tulip trees, and hard-wood useful for building purposes. Its soil is fertile, producing maple sugar, sorghum, wool, sweet potatoes, tobacco, cotton, every variety of grain, and the products of the dairy. It produced in '70, 1,233,960 bushels of corn, and 44,838 lbs. of honey. Cash value of farms in '70, \$6,521,190, numbering 3,393, including one of 1000 acres. It had in '70, 185 manufacturing establishments, employing 507 hands, with a capital of \$223,236, and an annual product of \$772,959, utilizing its valuable water-power. Among its industries are the manufacture of cotton yarn, woolen goods, saddlery and harness, and leather, and it has saw and flour mills. Seat of justice, Fayetteville.

LINCOLN, a co. in s.w. West Virginia, having the Coal river, an affluent of the Kanawha river for its eastern boundary, is drained in its western portion by the Guyandotte river, the Caney fork in the south-western, and other affluents of the Ohio and Kanawha rivers; 400 sq.m.; pop. '80, 8,739—8,723 of American birth, 52 colored. Its surface is mountainous, well provided with building timber and presents scenery of great beauty. It is watered by the Mud river, running at the base of the mountains, and parallel with them. The soil of the river bottoms is very rich, and is generally founded on carboniferous rock. Iron is abundant. Its products are buckwheat, oats, corn, rye, wheat, flax, maple sugar, tobacco, wool, honey, and sorghum. Cattle, sheep, and swine are raised. Seat of justice, Hamlin.

LINCOLN, a co. in s. Ontario, Canada, having lake Ontario for its n. boundary; intersected in the eastern section by the Welland canal; bounded on the e. by the Niagara river and the Erie and Niagara railroad, running parallel with the river for 28 m. from the town of Niagara to the International bridge, and is intersected by a branch of the Great Western railroad, running along the border of the lake, and crossing the canal to connect with the line to Niagara Falls; 321 sq.m.; pop. '71, 29,547. Its manufactories consist of foundries and machine shops, sewing-machine factories, soap and candle works, tanneries, woolen mills, breweries, flour and saw and planing mills. Ship building and repairing is among its industries, its ports having excellent shipyards. Seat of justice, St. Catharines.

LINCOLN, the capital t. of Logan co., Ill., near Salt creek, on the Chicago and Alton railroad, where it crosses the Indianapolis, Bloomington and Western railroad; also, on the Pekin branch of the Wabash railroad; 28 m. n.e. of Springfield, and 157 m. s.s.w. of Chicago. Pop. 5,000. It is the seat of Lincoln university (Cumberland Presbyterian), and of the state institution for feeble-minded children. The place contains 11 churches, 2 or 3 banks, a high school, a court-house, and manufactories of farm implements; also 1 daily and 4 weekly newspapers. Coal is mined in the neighborhood.

LINCOLN, a city, the capital of Nebraska and of the co. of Lancaster, situated at the junction of several branches of Salt creek; lat. about $40^{\circ} 50'$ n., long. $96^{\circ} 45'$ west. It is 66 m. s.w. of Omaha, and 168 m. n.w. of Leavenworth, Kansas, and lies upon the Nebraska or Midland Pacific, where it crosses the Burlington and Missouri river railroad, and is besides the n.w. terminus of the Atchison and Nebraska railroad. It was made the capital of the state in 1867; pop. about 10,000. It is surrounded by beautiful undulating prairies, and fine building sites abound in its neighborhood. It is regularly laid out; the 17 avenues running n. and s. bear numerical names, while the cross-streets bear the names of the letters of the alphabet. The avenues are 120 ft. and the streets 100 ft. wide. Among the public buildings are the state-house (built of light-colored limestone), the state asylum for the insane (built of sandstone, and costing \$136,000), the penitentiary (built of limestone at a cost of \$312,000), the state library, an opera-house, a high-school, the Nebraska state university and agricultural college (open in all departments to students of both sexes), and 10 churches. The city has two national and several other banks; two daily, one semi-weekly, and three weekly newspapers. In the near vicinity are abundant saline springs, from which large supplies of salt are obtained.

LINCOLN, ABRAHAM (*ante*), the 14th elected president of the United States, serving the 19th term of 4 years; b. in Hardin co., Ky., Feb. 12, 1809; his father being Thomas Lincoln, who married Nancy Hawks. The family was of English descent, and early among the settlers of Virginia. Whether the family was connected with the Lincolns of Massachusetts is not known. The birthplace of the war-president was no paradise. Kentucky was the rendezvous of Tories, runaway conscripts, deserters, debtors, and criminals of all kinds. Thomas Lincoln was a restless, thriftless man, living by jobs of carpentry and other work, until finally, deciding to try farming, he settled down in a wretched cabin near a spring of good water, but in a barren region. In that humble cabin Abraham was born. The boy was fond of fishing and hunting, but at an early age he began to grow serious, and of himself to develop the moral training which became so conspicuous in after-life. With his sister he traveled to a humble school four miles away. In 1816 Thomas Lincoln had a serious difficulty with a neighbor, the result of which was his emigration to Ohio in the autumn of that year, transporting his household goods on a rude flat-boat, and losing almost everything by the capsizing of the craft. Saving a few tools and the greater portion of his whisky, he brought up in Posey co., Ind., sold his boat, and chose a location in the wilderness in Perry county. With much difficulty he brought his family there, consisting of his wife Nancy, a daughter 9 years old, and Abraham, aged seven. Here in Oct., 1818, Abraham's mother died. The widower 13 months afterwards married a widow with whom he had been in love before he married Nancy Hawks. The new wife was a good step-mother to little Abraham and his sister (whose name was changed from Nancy to Sarah), although she brought a son and two daughters of her own. She found her step-children dirty and poorly clad, for they had been sadly neglected; but, being a woman of energy, a speedy and thorough reformation followed her advent. She took kindly to Abraham, and her love continued to the day of his death. She encouraged him in his studies, and all was harmonious and happy in the mixed family. It was not to his real mother but to his step-mother that Lincoln, in after years, so often referred as "saintly" and an "angel," who first made him feel like a human being, whose goodness first touched his childish heart, and taught him that blows and taunts and degradation were not always to be his portion in this life. He had but little chance for schooling, but that little was well improved. He grew in height amazingly, and before his 17th birthday was at his maximum of 6 ft. 4 in., wiry and strong, with enormous hands and feet, greatly disproportionate length of legs and arms, and over all a rather small head; his skin was yellow and shriveled, and his complexion swarthy. He wore coarse home-made clothes, and a coon-skin cap; his trousers, owing to his rapid growth, were nearly a foot too short. But this awkward, overgrown boy was always in good humor, and always in good health. While at school he was noted as a good speller, but more particularly for his abhorrence of cruelty—his earliest composition being a protest against putting coals of fire on the backs of captured terrapins. His last attendance at school was in 1826, when he was 17 years old. He worked at odd jobs, and one of his employers says "Abe was awful lazy; he would laugh and talk and crack jokes and tell stories all the time; he didn't love work." He would lie under a tree or in the loft of the house, and at night sit in the firelight to read, cipher, and scribble on the wooden fire-shovel. He read everything readable within his reach, and copied passages or sentences that especially attracted him. His reading, however, included little more than *Robinson Crusoe*, *Pilgrim's Progress*, *Weems's Life of Washington*, and a *History of the United States*. His step-

mother said that the Bible was one of his favorite books. His first knowledge of the law, in which he afterwards became eminent, was through reading the statutes of Indiana, borrowed from a constable. He had a strong memory and a taste for speaking in public. In 1825 he worked 9 months on a ferry over the Ohio river, receiving a salary of \$6 per month. His first venture in the great outside world was as assistant navigator of a flat-boat down the Ohio and the Mississippi to New Orleans, returning in June, 1828. In 1830 the Lincolns emigrated to Illinois, Abraham being the driver of a wagon hauled by 4 yoke of oxen. A few days after their arrival at their destination near Decatur, Lincoln became of age, and at once determined to make his own way in the world. The story of his making rails is fixed at this period, but it is apocryphal, and the "Illinois rail-splitter" was a misnomer. In this period Lincoln got a tolerable knowledge of grammar from a borrowed book, studied by the light of burning shavings in a cooper's shop. In 1832 came the Black Hawk Indian war, and Lincoln enlisted in a company at Sangamon and was chosen captain; but there were no remarkable acts done by him during the campaign.

In 1832, the year of Jackson's second election as president, Lincoln made his first appearance in politics as a candidate for the state assembly on the following platform: "I presume you all know who I am; I am humble Abraham Lincoln. I have been solicited by many friends to become a candidate for the legislature. My politics are short and sweet, like the old woman's dance. I am in favor of a national bank; I am in favor of internal improvements, and a high protective tariff. These are my sentiments and political principles. If elected I shall be thankful; if not, it will be all the same." This was straight whig doctrine. Lincoln made a good canvass, but he was not elected. His next venture was as a partner in a dry goods and grocery store at New Salem, but the concern failed, the partner fled, and Lincoln was left to settle up a losing business, paying all he owed in 1849. Having no faculty for trade, he now began to read in law, studied hard, and made rapid progress. Then he suddenly studied surveying, and tried his hand with compass and chain. In May, 1833, he was appointed postmaster at New Salem—compensation, next to nothing. He was not able to hire a room, and was said to have "carried the post-office in his hat." The mails came once a week, and their burden was light. In 1834 Lincoln's personal property was about to be sold by the sheriff to satisfy a judgment; but a new friend, James Short, bid in the property and gave it over to him. In 1834 he was again a candidate for the legislature, and was elected, running far ahead of his ticket. The party now had assumed the name of whig, and he soon became a whig leader. His first love episode was painfully sad. While boarding with James Rutledge, in New Salem, he became enamored of Ann, his landlord's daughter, a well-educated girl of 17, who had at the time another lover, who promised marriage, but did not keep his word. Lincoln and Ann Rutledge were betrothed in 1835, but the girl's health failed, and in August she died of brain fever. Her loss made Lincoln almost insane, and he raved piteously. "I can never bear to have snow, rain, and storm beat upon her grave," and "in her grave my heart lies buried," he cried out. It was at the time of her death that he took a liking to the poem by an English writer, the rev. Vicesimus Knox, commencing "Oh, why should the spirit of mortal be proud," lines that he was never weary of quoting; indeed, he repeated them so often that many people supposed him to be the author.

On taking his place in the legislature, Lincoln first saw Stephen A. Douglas, with no idea that he would be his competitor for the highest office in the nation. In 1836 Lincoln was again a candidate for the legislature on the following characteristic platform: "I go for all sharing the privilege of the government who assist in bearing its burdens. Consequently I go for admitting all whites to the rights of suffrage who pay taxes or bear arms, by no means excluding females." With the opposition candidate Lincoln stumped the district, as was then the custom, and by his vigorous speeches secured a whig victory, the first ever known in Sangamon county. Lincoln and Douglas were both chosen; but Douglas served only one session, and the next year was nominated for congress. In the presidential contest in 1836 Lincoln was for Hugh L. White of Tennessee, but the "hard cider" campaign of 1840 found him vociferous for Harrison and Tyler. With the struggle of Jackson against the U. S. bank and the shifting policy of Van Buren, Lincoln had no interest, attending diligently to his duties as a legislator, and beginning that antislavery record upon which so much of his fame will ever rest. The abolitionists were in the highest activity. George Thompson had just gone back to England after stirring up the small but enthusiastic party in this country; Garrison's *Liberator* was intensely annoying to the supporters of slavery; there was a great anti-abolitionist meeting in Boston; and president Jackson had, at the close of 1835, invited the attention of congress to the circulation through the mails of what were then called "inflammatory" documents. Henry Clay, Edward Everett, many of the governors of the northern states, and a large majority of the house of representatives strenuously opposed the agitation of the slavery question; all petitions on the subject were laid on the table without reading or debate, and all possible means were taken to prevent the discussion of the annoying subject. Illinois did not escape, though none of her citizens desired to establish or even uphold slavery. On the night of Nov. 7, 1837, the rev. Elijah P. Lovejoy was mobbed and shot dead at Alton for persisting in publishing an abolition newspaper. At this juncture, when the legislature was about to

pass resolutions deprecating the antislavery agitation, Lincoln presented his protest, to which he could get but one signer besides himself, in which he declares slavery to be founded on injustice and bad policy; but that abolition agitation tends to increase its evils; that congress cannot interfere with slavery in the states, but might in the District of Columbia on the request of the people. This protest was meant to avoid extreme views, and so no mention was made of slavery in the territories, that point being covered by the Missouri compromise, which was then in full force. Lincoln was never extreme, and probably till the war began he saw no hour when he would have altered a word in this protest. When the state capital was removed to Springfield in 1839, Lincoln established himself there. He had been licensed as an attorney two years before, and being at the capital he could attend both to his duties as a member of the legislature and his legal practice. His business grew rapidly, and he took into partnership John T. Stuart, a prominent whig, who had been a kind friend in former years, Lincoln preferring to be the junior in the firm. Springfield was a poor village of about 1500 inhabitants; and Lincoln was poor, indeed much in debt. It is said that his friend Bill Butler fed and clothed him for several years. In Jan., 1837, he delivered an oration on "The Perpetuation of our Free Institutions," whose eloquence greatly added to his fame. In Dec., 1839, Lincoln, on behalf of the whigs, challenged the other side to a joint debate, and Douglas and three other democrats were pitted against Lincoln, Logan, and two other whigs. The intellectual struggle between Lincoln and Douglas is still known as "the great debate;" and Lincoln was acknowledged to have had the best of the arguments. In 1840 Lincoln was an elector on the Harrison ticket, and made speeches in all parts of the state. But one-sided speeches were not suited to his temper; he preferred joint debates, where he could employ his masterly skill at retort. For twenty years (1838 to 1858) he followed Douglas, who was nearly always ready to accommodate him with a discussion. They fought their battles over and over, until one became president of the United States and the disappointment of the other had been buried in the grave a few months after Lincoln's inauguration. About 1839 Lincoln made the acquaintance of Mary, the daughter of hon. Robert S. Todd, of Lexington, Ky. They were engaged to be married; the day was set, and the supper made ready, but Lincoln failed to appear; he had gone quite crazy, and remained so for a year. His friend Speed took him to Kentucky, where he was kept until he had recovered his reason. In honorable fulfillment of his promise he married Miss Todd, Nov. 4, 1842. Mrs. Lincoln was a politician and a satirical writer of rare power. She wrote for the local papers and very soon involved her husband in a duel with Mr. Shields, then state auditor. Shields challenged Lincoln and they met in Missouri, but affairs were explained and the fight did not come off. In 1844 Lincoln was again an elector on the Clay (whig) ticket, and labored hard, but in vain for that great statesman. A handful of votes cast in New York for Birney, the abolition candidate, being a subtraction from the whig strength, gave the vote of that state to Polk and defeated and politically killed Clay. In 1846 Lincoln was elected to congress by 1511 majority in a district which, two years before, gave him only 914. He took his seat at the opening of the 30th congress, Robert C. Winthrop being speaker. In that house he was the only whig member from Illinois, with such democrats to watch him as John Wentworth, William A. Richardson, John McClernand; and Stephen A. Douglas in the senate. "There were giants in those days" in congress, such on the whig side as John Quincy Adams, Horace Mann, Washington Hunt, Jacob C. Collamer, Joseph R. Ingersoll, John M. Botts, Caleb B. Smith, Alexander H. Stephens, Robert Toombs, Samuel H. Vinton, and Robert C. Schenck; of democrats, Wilmot of Penn., McLane of Md., McDowell of Va., Rhett of S. C., Cobb of Ga., Boyd of Ky., Thompson of Miss., and George W. Jones and Andrew Johnson of Tenn. In the senate were Webster, Calhoun, Benton, Berrien, Clayton, Bell, Hunter, and W. R. King. Lincoln was put on the committee on post-offices and post-roads. He was opposed to the Mexican war, but voted for supplies to carry it on. In 1848 he favored the nomination of Taylor (whig) for president, and made a strong political speech in the house for that purpose, subsequently speaking in various parts of the country. In the second session of the 30th congress he made no especial mark. His law partnership with Stuart ended, April, 1841, when he united in practice with ex-judge Stephen T. Logan, and soon afterwards formed a partnership with his best friend, William H. Herndon. Dec. 3, 1839, Lincoln was admitted to practice in the federal courts, on the same day with Stephen A. Douglas. Many curious anecdotes are told of the great story-teller, of his power, his energy, his oddities, and his generosity. He was for a time counsel for the Illinois Central railroad company, by whom he was badly treated. In 1859 he went to Cincinnati to argue the McCormick reaper case and found Edwin M. Stanton one of his colleagues; but Stanton treated him with such discourtesy that it seems remarkable that Lincoln ever made the haughty Edwin a member of his cabinet. Lincoln wanted to be commissioner of the general land-office, but did not get the appointment. He was offered the governorship of Oregon territory, but his wife declined to go there, and he would not accept. For two years after leaving congress he was not publicly prominent. In 1850 he refused a nomination for congress; July 1, 1852, he was selected at a meeting of citizens to deliver a eulogy on Henry Clay. The bill offered by Douglas, Jan. 4, 1854, to establish a territorial government in Nebraska reopened the antislavery war, and Lincoln was forced to take decided ground against the extension of slavery into

the territories, which he did at the state fair at Springfield in Oct. in a speech of great power. Douglas was there, chafing like a tiger under the scathing remarks of his great opponent. He endeavored to reply, but was too much excited to speak coherently. He promised to conclude in the evening, but did not appear. Other contests between the two followed, but they finally agreed to give up joint discussion. In Nov., in spite of his positive declination, Lincoln was again elected to the legislature. At the same time he was very desirous to succeed Shields (democrat) in the U. S. senate; but Lyman Trumbull carried off the prize. During the Kansas excitement Lincoln's sympathies were all in favor of the free-state side, but he discountenanced the use of force. In 1856 he said to the force party: "I agree with you in Providence; but I believe in the providence of the most men, the largest purse, and the largest cannon. You are in a minority—a sad minority—and cannot hope to succeed, reasoning from all human experience. You would rebel against the government, and redden your hands in the blood of your countrymen. If you are in the minority, as you are, you cannot succeed. Your attempt to resist the law of Kansas by force is criminal and wicked, and all your feeble attempts will be follies, and end in bringing sorrow on your heads, and ruin the cause you would freely die to preserve."

It was at the state convention at Bloomington in 1856 that the republican party in Illinois was formed, and there Lincoln made what is considered by many the greatest of all his speeches. Up to this time he had argued the slavery question on the ground of policy, never reaching to the radical right of the matter. At Bloomington he was baptized to freedom; he was newly born, and had all the fervor of a fresh convert; his heart was alive to the right; he felt justice; the flame, smothered for years, broke out; his sympathies burst forth, and then and there he unburdened his penitential soul. A hearer said of the speech: "It was fresh, new, odd, original, filled with fervor and enthusiasm; it was full of fire, energy, and force, of great truths and the sense of right; it was justice and equity set ablaze by the force of the soul; it was hard, heavy, knotted, gnarled, and heated." From that hour to the night of his murder slavery had no more persistent opponent than the man whom slavery assassinated. On June 17, 1856, in the first Republican national convention at Philadelphia, Lincoln's name was put forth for vice-president, and was received with considerable favor; but Wm. L. Dayton was selected, having 259 votes to 110 for Lincoln and 180 scattering. This year, for the third time, Lincoln was on the electoral ticket, now as a republican, and spoke and worked for Fremont's success. All this time the Kansas question was prominent, and in the close of the long struggle it became to Lincoln the passport to the presidency through the pertinacity of Douglas in sticking to his idea of "squatter (or popular) sovereignty." This split the democratic party in 1860, and made Lincoln's success certain. In 1858 he made a speech at the republican state convention for the purpose of securing a nomination for U. S. senator. His friends were surprised, and nearly all agreed that the speech was injudicious and would ruin his prospects. In this speech he foreshadowed Seward's "irrepressible conflict." One of Lincoln's nearest friends says: "I think the speech was intended to take the wind out of Seward's sails" (for the nomination for president). The state was thoroughly canvassed by Douglas and Lincoln; the democrats carried both branches of the legislature; Douglas was re-elected U. S. senator, and Lincoln was bitterly disappointed. When asked how he felt, he said "like the boy who stubbed his toe; it hurt too bad to laugh, and he was too big to cry."

In the winter of 1858-59 Lincoln appeared as a lecturer, starting with Adam and Eve for subject, and coming down to the "invention of negroes and the present mode of using them." Parts of the lecture were witty or humorous, but on the whole it was commonplace; his friends were mortified, and he soon gave up the lecturing business. In April, 1859, the people of his own town began to talk of Lincoln as a proper candidate for president, but he discouraged the idea. In Sept. he made speeches in Ohio in the track of Douglas; in Dec. he spoke at several places in Kansas. He was more and more talked of for a presidential nomination, and finally authorized his friends to work for him. Feb. 25, 1860, on invitation, he appeared in New York to deliver a speech. He spent that day (Saturday) in revising the speech; on Sunday went to hear Mr. Beecher preach; on Monday wandered over the city, and finally delivered his speech in Cooper Institute. The address was warmly praised in most of the city journals, and was in fact highly successful. After this he spoke in many cities in New England. He was present, though not a delegate, at the Illinois state convention, May 9, 1860, where he received the most flattering evidences of his great popularity, which was fully assured by the adoption without dissent of a resolution declaring him the choice of the republicans of Illinois for president, and instructing the delegates to the Chicago convention to use all honorable means to secure his nomination.

On May 16, 1860, the republican national convention met at Chicago. The city was full of political workers, and no previous convention had half the number of "outside delegates." Two days were spent in organization and the adoption of a platform, and balloting came on the third day. Up to the previous evening Seward's nomination seemed certain; but the outside pressure for Lincoln was powerful, for his friends were chiefly men of Illinois, and the convention was held in their state. On the first ballot the vote was: Seward, 173½; Lincoln, 102; Cameron, 50½; Chase, 49; Dayton, 14;

McLean, 12; Collamer, 10; and six scattering. On the second ballot: Seward, 184½; Lincoln, 181; Chase, 42½; Bates 35; Dayton, 10; McLean, 8. On the third trial Lincoln got the nomination, and in the afternoon Hannibal Hamlin of Maine was nominated for vice-president. Lincoln was at Springfield, evidently very nervous. When he learned the result of the second ballot he felt sure of success. Then came news of the triumph, which he received without special emotion, and after shaking hands with a few friends said: "Gentlemen, there is a little short woman at our house who is probably more interested in this dispatch than I am; if you will excuse me I will take it up and let her see it." On the following day a committee of the convention made a formal tender of the nomination, which Lincoln accepted in a very brief speech:

"Imploring the assistance of divine providence, and with due regard to the views and feelings of all who were represented in the convention; to the rights of all the states and territories, and the people of the nation; to the inviolability of the constitution and the perpetual union, harmony, and prosperity of all, I am most happy to co-operate for the practical success of the principles declared by the convention."

The democratic national convention at Charleston split on the slavery question. The South totally repudiated Douglas and his squatter sovereignty, while Douglas was equally determined to stick to it. Most of the Southern delegates withdrew and organized a separate convention. Those who remained voted 57 times for a candidate, Douglas always having the highest number, but not the two-thirds required by democratic precedent. They adjourned to meet at Baltimore June 18. The seceders adjourned to meet at Richmond on the first Monday of June, but on that date further adjourned to meet June 28 in Baltimore. The result finally was the nomination of three presidential candidates; Douglas by his convention, Breckinridge of Kentucky by the seceders, or extreme southerners, and Bell (formerly a whig) of Tennessee by the "constitutional union" party, composed for the most part of "know-nothings" and old-time whigs. The canvass was warm on all sides; and Douglas, encouraged by the result of the spring elections, felt certain of victory. Election day was Nov. 6, when by far the largest vote ever cast in the union was given. Lincoln got 1,857,601; Douglas, 1,291,574; Breckinridge, 850,082; and Bell, 646,124; Lincoln lacked 930,170 of a majority, but the electoral vote told a different story, being 180 for Lincoln, 72 for Breckinridge, 30 for Bell, and only 12 for Douglas.

Lincoln felt deeply the responsibility of his great trust, and still more keenly the difficulty of administering the government for the sole benefit of an organization which had no existence in one-half of the union. He was anxious to take prominent southerners, such as Alexander H. Stephens, and Gilmore of North Carolina, into his cabinet; but they refused all such advances. Secession was determined upon, and events tending to that end followed rapidly. Nov. 10, only four days after the election, a bill was proposed in the South Carolina legislature to equip 10,000 volunteers, a U. S. senator from that state resigned, and a state convention was ordered to consider the question of secession. During that month and the next, senators and officers of the army resigned; secession meetings and conventions were held; the South accumulated arms and enlisted troops; and Dec. 20 the South Carolina convention unanimously adopted an ordinance seceding from the union. The year closed in gloom, and 1861 opened with no hope of peace. On Feb. 4 a peace congress met in Philadelphia; on the same day delegates met at Montgomery, Ala., to form a southern confederacy, and on the 18th the work was done, and Jefferson Davis was inaugurated president. In the mean time Lincoln was making his way towards Washington. After an affectionate parting with his mother who said she was sure she would never see him again, he put his house in order, handed over the law business to his partner, with a request that the old sign should remain for four years at least, and on Feb. 1 the arrangements for the journey were completed. He bade farewell to his life-long friends in a brief and touching address, and turned his face toward the mighty responsibilities soon to be thrown upon him. Everywhere the people were anxious to see and hear him, and he made brief addresses at Indianapolis, Columbus, Cleveland, Pittsburg, before the New York legislature, in New York (in response to the mayor), in Trenton, Philadelphia, and Harrisburg. While at Philadelphia there came rumors of a threatened attack upon his life; bridges were to be burned, tracks torn up, torpedoes exploded, and all manner of weapons were to be drawn against one of the most peaceful men in all the country. The great mass of this menace was sheer bravado, yet his friends (not himself) deemed it proper to take extra care. On the morning of Washington's birthday Lincoln raised the old flag over Independence hall in Philadelphia, and immediately proceeded to Harrisburg. Here he was taken in charge by a few picked friends and the leading railroad officers, and early the next evening quietly went from his hotel to a special train for Washington. He wore no disguise; but changed his stiff hat for a soft one, and threw on a shawl to conceal his features if necessary. At Philadelphia he was quietly transferred to the Baltimore railroad, reached Baltimore at 3½ A.M., passed unnoticed, and was safe in Washington at 6 o'clock. His family followed in another train. His secret and safe arrival caused much comment, and he himself quickly regretted that he had not traveled openly in sight of all the people; he felt that he had laid himself open to the charge of cowardice. Almost the first news he heard was the surrender of gen. Twiggs in Texas, a great gain to the secessionists. Lincoln was inaugurated on Monday, Mar. 4, and delivered an elaborate address,

full of the best qualities of his nature. Ex-president Buchanan accompanied him to the White House and invoked peace and happiness for his administration. The appearance of the new president is thus described by Ward Lamon in his *Life of Abraham Lincoln*: "He was 6 ft. 4 in. high, the length of his legs being out of all proportion to that of his body. When he sat on a chair he seemed no taller than an average man, measuring from the chair to the crown of his head; but his knees rose high in front. He weighed about 180 lbs., but was thin through the breast, narrow across the shoulders, and had the general appearance of a consumptive subject. Standing up, he stooped slightly forward; sitting down, he usually crossed his long legs or threw them over the arms of the chair. His head was long, and tall from the base of the brain and the eyebrow; his forehead high and narrow, inclining backward as it rose. His ears were large and stood out; eyebrows heavy, jutting forward over small sunken blue eyes; nose long, large, and blunt; chin projecting far and sharp, curved upward to meet a thick lower lip, which hung downward; cheeks flabby, the loose skin falling in folds; a mole on one cheek, and an uncommonly prominent Adam's apple in his throat. His hair was dark brown, stiff, and unkempt; complexion dark, skin yellow, shriveled, and leathery. Every feature of the man—the hollow eyes, with the dark rings beneath, the long, sallow, cadaverous face, intersected by those peculiar deep lines, his whole air, his walk, his long and silent reveries, broken at intervals by sudden and startling exclamations, as if to confound an observer who might suspect the nature of his thoughts—showed that he was a man of sorrows, sorrows not of to-day or yesterday, but long-treasured and deep, bearing with him continual sense of weariness and pain." Yet this strangely sorrowful man dearly loved jokes, puns, and comical stories, and was himself world-famous for his inimitable narrative powers. He drank very little, and was in precept and example a temperance man; and at table always ate sparingly. He was never a member of a church; he is believed to have had philosophical doubts of the divinity of Christ, and of the inspiration of the Scriptures as these are commonly stated in the systems of doctrine called evangelical. In early life he read Volney and Paine, and wrote an essay in which he agreed with their conclusions. Of modern thinkers he was thought to agree nearest with Theodore Parker.

Mr. Lincoln took the executive chair in a dark and stormy time. Vast preparations for war had been made in the south, and, except with him and a few still hopeful men, a contest was looked upon as inevitable. In his inaugural address he said that he should "take care that the laws of the union be faithfully executed in all the states;" adding, "I trust this will not be regarded as a menace. There need be no bloodshed or violence, and there shall be none unless it be forced upon the national authority. The power confided to me will be used to hold, occupy, and possess the property and places belonging to the government, and to collect the duties and imposts; but, beyond what may be necessary for these objects, there will be no invasion, no using of force against or among the people anywhere. Physically speaking, we cannot separate, we cannot remove our respective sections from each other, nor build an impassable wall between them. A husband and wife may be divorced, and go out of the presence and beyond the reach of each other; but the different parts of our country cannot do this. They cannot but remain face to face; and intercourse, either amicable or hostile, must continue between them. Is it possible, then, to make the intercourse more advantageous or more satisfactory after separation than before? The chief magistrate derives all his authority from the people; and they have conferred none upon him to fix terms for the separation of the states. His duty is to administer the present government as it came into his hands, and to transmit it unimpaired by him to his successor. In your hands, my dissatisfied fellow-countrymen, and not in mine, is the momentous issue of civil war. You can have no conflict without being yourselves the aggressors. You have no oath registered in heaven to destroy the government, while I shall have the most solemn one to preserve, protect, and defend it." In fact he denied the right of any state or number of states to go out of the union. The confederates considered this address to amount to a declaration of war, and hastened their preparations. In the north the address united and consolidated the people in support of its views: Less than six weeks afterwards, gen. Beauregard, on behalf of the confederate government, demanded the surrender of Fort Sumter in Charleston harbor, then garrisoned by a small force under maj. Robert Anderson. The surrender being refused, the fort was attacked April 12, 1861, and thus actual hostilities begun. That act united the people of the north; party lines were broken down, and, with the exception of a few extreme proslavery men (afterwards known as "copperheads"), the whole people echoed the words of Jackson when South Carolina made her first attempt at secession—"The union must and shall be preserved." Maj. Anderson abandoned the fort on the 14th. The next day president Lincoln called a special session of congress to meet on the 4th of July; at the same time he called for 75,000 militia. The response was instantaneous. Massachusetts, with her sixth regiment, was first in the field. This regiment was attacked while going through Baltimore, and a number of its members were killed. On April 19 the president proclaimed the blockade of all the ports of the seceding states. The south was even more inflamed than the north; three days after the fall of Sumter the Virginia legislature voted to join the confederacy, and a few days later North Carolina followed her example. The confederates had raised 100,000 men, and made no secret of their design to capture the

national capital and invade the north. On May 30 another call for men was issued by Lincoln, and both the army and the navy were speedily and largely reinforced. In a brief message to congress the president rehearsed the acts of rebellion, and said: "This issue embraces more than the fate of these United States. It presents to the whole family of man the question whether a constitutional republic or democracy—a government of the people by the same people—can or cannot maintain its territorial integrity against its own domestic foes." Some opposition was made in congress by members who thought it unconstitutional to "coerce a sovereign state," but the loyal sentiment overwhelmed them. July 15 a democratic member (McClernand of Ill.) offered a resolution pledging the house to vote any amount of money and any number of men necessary to suppress the rebellion and restore the authority of the government. There were only five opposing votes in a house of nearly 300 members. On July 21 the union forces were very badly defeated at Bull Run, and driven in a panic back upon Washington. The news gave the northern people a terrible shock, but it was only momentary, and its ultimate effect was to rouse to the highest pitch the patriotism and courage of the loyal states, and volunteers came by thousands and thousands without waiting for a call. Up to the last of Oct. gen. Scott retained his position as commander of the army; but he was growing feeble, and was retired, gen. McClellan taking his place. The army was reorganized, new troops were drilled, and the whole force was soon in good discipline. But McClellan was loath to fight; though entirely loyal, he inclined to act with the moderate men on both sides, and whenever it seemed necessary to strike directly at slavery in order to sustain the republic he was not the man or the officer to do it. McClellan remaining inactive until near the end of Jan., 1862, the president, on the 27th of that month, ordered that on Feb. 22 a general movement by land and sea should be made against the confederates. McClellan objected, and nothing was done until at a council of war, held Mar. 13, it was decided to move against Richmond from fortress Monroe. Here again McClellan waited and hesitated, complaining that he was not properly supported at Washington, and after a number of battles, in which the unionists were generally beaten, he was forced to abandon the campaign and retreat. The close of the summer of 1862 was a dark period for loyal men, but no one suffered so keenly or worked so faithfully as did president Lincoln. The confederates now took the aggressive; Lee invaded Maryland, but was soon driven out after the first union victory at Antietam. To follow up this victory, McClellan was ordered to follow Lee and fight him or drive him southward. Again McClellan delayed, and finally broke the long-enduring patience of Lincoln, who removed him from command, Burnside taking his place. Battles with Lee followed at Fredericksburg and Chancellerville, in both cases unfortunate for the unionists. The people of the north began to feel that it was time to strike the rebellion in a vital part, and the emancipation of the slaves in the south was urged upon Lincoln, not only as a legitimate, but as a vitally necessary war-measure. He hesitated; thought such an act would drive the border slave states, still nominally loyal, into the confederacy. Again, what if the emancipated negroes should be taken into the confederate army? He said to the men who were urging the emancipation idea, and adding that they felt sure it was the will of God: "I hope it will not be irreverent for me to say that, if it is probable that God would reveal his will to others on a point so connected with my duty, it might be supposed he would reveal it directly to me, for, unless I am more deceived in myself than I often am, it is my earnest desire to know the will of Providence in this matter; and if I can learn what it is, I will do it." In reference to the position of the slave-holding states still in the union he said: "There are 50,000 bayonets in the union army from the border slave states. It would be a serious matter if, in consequence of a proclamation such as you desire, they should go over to the rebels." Lincoln carefully sought the opinion of the northern people in the matter, and soon found that he would be sustained in the action questioned. Thus fortified he issued, on Monday, Sept. 22, 1862, the most important official document, the declaration of independence only excepted, known in American history; declaring that on and after Jan. 1, 1863, all slaves in states or parts of states then in rebellion should be free. Two years afterwards Lincoln said of the proclamation: "As affairs have turned it is the central act of my administration, and the great event of the 19th century." After the conflict at Chancellerville the current of success seemed to favor the union arms, leading on to the great event of July 4, 1863—the capture of Vicksburg by gen. Grant. At the same time the three-days' battle between the unionists under Meade and the confederates under Lee was going on near Gettysburg, resulting in a decisive union victory. Lincoln soon saw in Grant the man for the occasion, and in Mar., 1864, in compliance with the recommendation of congress, the captor of Vicksburg was appointed lieut. gen. of the armies of the United States. This sealed the fate of the rebellion. The rebels had fought long and bravely; but their resources failed, their losses were enormous, and those who lived were worn out. Sherman, almost unopposed, marched through an empty country to the sea; Grant, who knew no such word as fail, had set himself to the capture of Richmond, and would "fight it out on this line if it takes all summer." We need not follow details when the catastrophe is so near. On April 2, 1865, Lee was forced out of Richmond (then the confederate capital), and seven days afterwards was compelled to surrender his whole army to Grant at Appomattox. On the 17th, eight days later, gen. Joe Johnston surrendered to Sherman.

and the great struggle was ended; in fact, it ended with the surrender of Lee. Grant reached Washington on the 13th, met the president and secretary of war, and orders were prepared to stop the raising of recruits. The war was over and every loyal heart was rejoicing. Lincoln's praise was on every tongue; the patient man who had suffered the pain of a thousand deaths during the war; who had been misunderstood, maligned, and condemned, by friends as well as enemies, now shone conspicuous in popular affection. He had liberated a race; he had saved his country. On the evening of April 11 the White House was illuminated, and Lincoln made a short address expressing his acknowledgments to the army, and his gratitude to God, and then turning his remarks to reconstruction, the cardinal points of which he thought would be to grant universal amnesty on condition that the states lately in rebellion should grant universal suffrage. Lincoln and Grant were the idols of the hour. On the morning of the 14th they were invited to visit Ford's theater in the evening. Grant left the city, but the president, though not at all inclined, attended with his wife, and maj. Rathbone and Miss Harris. They went into a private box, and Lincoln was soon absorbed in the play (*Our American Cousin*). At about 11:30 o'clock the box was suddenly invaded by John Wilkes Booth, an actor and a furious pro-slavery man. In an instant he put a pistol to the back of Lincoln's head and fired; then leaped from the box to the stage, crying, "*Sic semper tyrannis!* The south is avenged!" and fled through the stage door, mounted a horse, and escaped. The president did not stir; the ball had gone through his brain, and he had no further consciousness. He died the next morning about half-past seven. On the same evening an attempt was made to murder secretary Seward, who was confined to his house in consequence of an accident. It would be vain to attempt to describe the sorrow that spread over the nation, and even other nations, on hearing of this awful tragedy. The assassin was captured and executed, and some of his confederates shared the same fate. It is satisfactory to know that this act of infamy was the work of a gang of private men, and that the confederate government and leaders had no hand in it. Thus, when Lincoln

Had mounted fame's ladder so high,
From the round at the top he could step to the sky,

the great president passed to his rest. Twice elected to his high office—the last time (in Nov., 1864) over gen. McClellan by a popular majority of more than 400,000—he was torn from it in the moment of triumph to be placed side by side with Washington, the one the father, the other the savior of the union; one the founder of a republic, the other the liberator of a race.

LINCOLN, BENJAMIN, 1733-1810; b. Hingham, Mass. Until the age of 40 he was a farmer, but had filled the positions of local magistrate, representative in the colonial legislature, and col. of militia. In 1774-75 he took an active part in organizing the provincial militia for active resistance to the mother country, and was appointed maj.gen. of the Massachusetts militia. At the siege of Boston Washington put him in command of an expedition to force the British fleet out of Boston harbor. He commanded the Massachusetts militia at the battle of White Plains in the fall of 1776; reinforced Washington by a fresh levy of Massachusetts militia at Morristown, N. J., Feb., 1777; and by Washington's request was made a maj.gen. in the continental army, Feb. 19 of that year. He co-operated with gen. Schuyler in the summer campaign against Burgoyne in New York, and again organized reinforcements of New England militia for the army. In Sept. he joined gen. Gates as second in command, and was disabled by a wound Oct. 8 at the battle of Bemis Heights, near Saratoga. He resumed service in Aug., 1778, and in Sept. was assigned to the command of the southern army. His command of this division of the army was rather to strengthen the faltering allegiance of the Carolinas and Georgia to the cause of the states by a show of strength than for offensive operations. D'Estaing, admiral of the French fleet, was to co-operate with him near the coast. He arrived at Charleston Dec. 4, 1778, and maintained a defensive watch of the English forces. His army met with reverses at Brier creek and Stone ferry in Mar. and June, and, acting in conjunction with D'Estaing with a view to retake Savannah from the British, the combined forces met with a sanguinary repulse Oct. 9; and the following spring his army was besieged in Charleston and forced to capitulate May 12, 1780. He returned to his home prisoner on parole. Exchanged in the spring of 1781, he joined Washington before Yorktown, and was chosen by Washington to receive the sword of lord Cornwallis on his surrender. He held the office of secretary of war for three years, and retired to his farm at Hingham in 1784. Gen. Lincoln after this held various temporary positions of trust under the state of Massachusetts and the United States. In 1789 he was made collector of the port of Boston, which position he held till his death at the age of 87. He was a man of simple earnest character; and the persevering zeal and disinterestedness of his public service gave him great popularity in his native state and in New England. His services in organizing and drawing opportunely into service the militia of the several states were of great value, and so recognized by Washington.

LINCOLN, ENOCH, 1788-1829; son of Levi Lincoln (1749-1820); b. in Worcester, Mass.; studied at Harvard college; entered the legal profession in 1811, and settled at Fryeburg, Me., from which place he removed to the neighboring town of Paris in 1819.

He was a member of congress from 1818 to 1826, and governor of Maine in 1827-29. During his residence at Fryeburg he described the beautiful scenery of that forest-town in a poem entitled *The Village*. He also delivered a poem at the centennial celebration of the fight at Lovewell's pond. He left historical manuscripts of value, some of which have been published in the first volume of the *Maine Historical Collections*.

LINCOLN, JOHN LARKIN, b. in Boston, 1817; professor of Latin in Brown university; editor of *Selections from Livy* (1847); the *Works of Horace* (1851); and Cicero's *De Senectute*.

LINCOLN, LEVI, 1749-1820; b. at Hingham, Mass., and graduated at Harvard in 1772; became a lawyer and settled at Worcester in 1775; was judge of probate in 1776; and served in the constitutional convention of 1780. In 1798 he was elected to congress as a political disciple of Jefferson, serving but for a single term. From 1801 to 1805 he was attorney-general of the United States; in 1807-8, lieutenant-governor of Massachusetts; and acting-governor in 1809. He declined an appointment as judge of the supreme court of the United States. Died at Worcester.

LINCOLN, LEVI, LL.D., 1782-1868; son of Levi Lincoln (1749-1820); b. in Worcester, and graduated at Harvard in 1802; entered the legal profession in 1805; served in the constitutional convention of 1820; often a member of the legislature, speaker of the house in 1822, president of the senate in 1845; elected lieutenant-governor of Massachusetts in 1823, and was governor from 1825 to 1834; was a member of congress from 1835 to 1841; a judge of the state supreme court in 1824; collector of the port of Boston from 1841 to 1843; and first mayor of Worcester in 1848.

LINDAU, a t. of Bavaria, built on islands in the lake of Constance; pop. about 5,000; the center of a small commerce in hops, wine, fish, and cheese. Its manufactures are mechanical and musical instruments, carriages, etc. In the 7th c. it was a well-known Roman town, and a free imperial city until 1803.

LIN'DE, SAMUEL BOGUMIL, 1771-1847; of Swedish descent; b. at Thorn, Prussia; studied at Leipsic; spent several years in Dresden and Vienna; and in 1803 was appointed director of the lyceum of Warsaw, where he died. His *Dictionary of the Polish Language*, in 6 vols., is highly esteemed.

LINDEN (tree). See LIME, *ante*.

LINDLEY, DANIEL, D.D., b. Penn.; graduated at the Ohio university, of which his father was president; taught school to pay his way through the Union theological seminary of Virginia, where he graduated in 1829; was immediately licensed to preach by the presbytery. For three years he preached in Charlotte, N. C., and saw several hundred added to the church. When an appeal was made by the American board for settled pastors to become missionaries, he offered his services. He married Lucy Allen of Richmond, Va., and sailed in 1834 for the cape of Good Hope. From Cape Town they journeyed by wagons 500 m. to Griqua Town, thence the next year 500 m. farther to Mosika, the country of Mosilikatse. After encountering great peril and suffering in the war between the Dutch and Mosilikatse, reduced almost to starvation, they reached Port Natal, whence shortly they were driven by war between the Dutch and Dingaan, great-uncle of Cetwyayo. In June, 1839, he returned to Port Natal, where he labored among the Zulus for about thirty-five years. Not only did he make known to them Jesus Christ, but when the native Christians wished to improve their modes of life, though not a mechanic, he could show them how to make brick, to build houses, to construct a few implements and pieces of furniture. In sickness he ministered to them; if a tiger or a lion threatened, his rifle never missed its aim; though he was neither physician nor sportsman. The Zulus honored and loved him. The Dutch Boers, whose wanderings he had shared when war drove him from his home and work among the natives, said, "If there be a human name that warms the heart of a Natal Teck Boer, it is the ever-to-be-remembered name of Daniel Lindley." He died at Morristown, N. J., Sept. 3, 1880.

LINDSAY, county-seat of Victoria co., Ontario, Canada, on the Scugog river, and on the line of the Canada Midland railway, 56 m. n.e. of Toronto; pop. about 4,000. Its commerce is principally in lumber, grain, and flour. Its manufactures are doors, sash and blinds, iron-works, beer, and extracts of hemlock bark. It contains the county buildings, and several fine churches and schools.

LINDSAY, WILLIAM SCHAW; b. in Ayrshire, Scotland, in 1816; went to sea as cabin-boy at 15 years of age; was second mate in 1834, chief mate in 1835, and commander of a merchantman in 1836; became agent for the Castle-Eden coal company in 1841; took an active part in opening the port of Hartlepool and providing it with wharves and docks; in 1845 went to London, where in a short time he was recognized as one of the "merchant princes" of the city; was a candidate for parliament in 1852, and defeated; but in 1854 elected for Tynemouth and North Shields, and re-elected without opposition in 1857; two years later was elected for Sunderland. He distinguished himself in parliament by earnest, careful attention to commercial and shipping interests, and took part in organizing the administrative reform association. Besides numerous pamphlets on mercantile and political topics he has published *Our Navigation, Mercantile, and Marine Laws Considered*; *Our Merchant Shipping*; and *The History of Merchant Shipping*, the latter a work in 2 volumes.

LINDSLEY, PHILIP, D.D., 1786-1855; b. at Morristown, N. J.; graduated at Princeton in 1804, where he was tutor in 1807-9 and 1812, professor of languages in 1813, and vice-president in 1817, at which time he was ordained as a minister of the Presbyterian church. Between 1820 and 1839 he was offered the presidency of 10 different colleges, and in 1824 accepted that of the university of Nashville, Tenn., which he held till 1850, when he resigned, after a very successful career. He subsequently held the professorship of archaeology and church polity in the Presbyterian theological seminary at New Albany, Ind. His complete works, comprising sermons and educational and other discourses and essays, together with a memoir by Leroy J. Halsey, were published in 1865. Died at Nashville.

LINE, in military or naval rank (*ante*). The line-officers of the navy and army in the United States are divided into eleven grades, and their comparative rank on the active or retired list is as follows:

The admiral of the navy ranks with a general of the army.			
The vice-admiral	"	"	lieutenant-general of the army.
10 rear-admirals of the navy rank with	major-generals		
25 commodores	"	"	brigadier-generals
50 captains	"	"	colonels
90 commanders	"	"	lieutenant-colonels
80 lieutenant-commanders	"	"	majors
280 lieutenants	"	"	captains
100 masters	"	"	first lieutenants
100 ensigns	"	"	second lieutenants.
— midshipmen			

All staff officers are appointed by the president with the sanction of the senate. He also appoints for vessels in actual service all warrant officers, such as boatswains, gunners, sail-makers, and carpenters, that may be required. All officers not entitled to hold warrants are called petty officers. All officers of the army above the grade of sergeant hold their authority by commissions, and are therefore termed commissioned officers, to distinguish them from non-commissioned officers.

LINE, MATHEMATICAL (*ante*), may be straight, curved, or mixed; a straight line is defined by Euclid as "one which lies evenly between two points." To this, it is objected, the idea of straightness is presupposed in the definition; it is said, also, by some mathematicians that the order of definitions is reversed by Euclid from the order of comprehension; that the mind conceives first the solid and then successively the surface, line, and point. The definition now generally given is that a straight line is the *shortest* path between any two given points; a curved line is one not straight, i.e. between any two geometrical points in its extent a shorter line may be drawn; the term mixed line is used to denote a union of the two in extent, but is hardly a pure geometrical concept. Straight lines may be produced both ways without limit; may be drawn through any two points in space, and any two coincide throughout indefinite extension if two points in the one coincide with two points in the other. If we admit the idea of motion, we may define a line as the path of a moving point, a surface as the path of a moving line, and a solid as that of a moving surface. Thus if a straight line revolves about one extremity as an axis, it will describe with the other a circle of which it is itself the radius; and a semicircle revolving about its diameter will produce a spherical surface.

LINEN AND LINEN MANUFACTURES (*ante*). Linen was first manufactured in England by Flemish weavers under the protection of Henry III., in 1253; it was not until 80 years after, that a colony of Scots planted themselves in the n.e. part of Ireland, and established there the linen manufacture. In 1696 hemp, flax, linen-thread, and yarn were permitted to be exported from Ireland duty free; it was not before 1860 that the duty was taken off imported linen.—The introduction of the linen manufacture into the United States took place in 1834, when a mill was set up at Fall River, Mass. As late as 1870 there were but 10 establishments for this manufacture in the United States, their product being set down at \$2,178,775. The importation into the United States in the year ending June 30, 1879, of flax and manufactures of flax, jute and its manufactures, and hemp, amounted to \$23,157,769.

LING. See HEATH (*ante*).

LING, PETER HENRIK, 1776-1839; b. in Sweden; of an adventurous spirit, he traveled as a young man through Germany and France; was fencing-master at the university of Lund in 1805, in 1813 teacher of fencing at the military school of Carlesberg, and in 1816 director of the gymnastic institute of Stockholm, where he died. He bestowed much thought and labor upon his profession, developing gymnastic exercises as a form of medical treatment, leading finally to what is now extensively known as the "Swedish movement cure." His poetical works, which appeared from time to time, were addressed to the patriotism of the Swedes, and well calculated to inspire in them a deep love of country and a heroic determination to defend it at all hazards.

LINGAN, JAMES MACCUBIN, 1752-1812; b. in Maryland, and took an active part in the war of the revolution, rising to the rank of brig-gen.; was one of the prisoners at

fort Washington, and kept for a long time in the prison-ship; after the war, was collector of the port of Georgetown, Md.; resided in Baltimore in 1812, where he was killed, July 28, by a mob while bravely defending the printing-office of the *Federal Republican*.

LINGUA FRANCA, a kind of corrupt Italian, with a considerable admixture of French words and idioms; spoken along the shores of the Mediterranean.

LINGUISTICS. See PHILOLOGY, *ante*.

LINK, a unit of measure in land surveying, $7\frac{32}{100}$ in. in length.

LINLEY, THOMAS, 1725-95; b. Wells, Eng.; was the pupil first of Chilcot, organist of the Abbey at Bath, and finished his studies under Paradies, an eminent Venetian; established himself in Bath, teaching music, and giving concerts, his two daughters Mrs. Sheridan and Mrs. Tickell contributing greatly to the attraction by their superior singing; removed to London, to conduct the oratorios, first in connection with Stanley, then with Dr. Arnold. Christopher Smith having retired from the management of the London oratorios, Mr. Linley succeeded him in connection with Mr. Stanley, the blind composer, and on his death with Dr. Arnold. In 1775 he set the music to Sheridan's opera *The Duenna*, which had unparalleled success, having been performed 75 times that season. He united in 1776 with Sheridan in purchasing an interest in the Drury Lane theater, Linley having direction of the musical department, which he conducted for 12 years. Among other pieces he produced *Carnival of Venice*; *Selima* and *Azor* from the French. His *Six Elegies*, written early in life, were original, simple, and beautiful, and did much for his fame and fortune. His twelve ballads and a madrigal have great merit. The death of his son Thomas by drowning at the age of twenty-two affected him so deeply that he never recovered from the shock. The son had made great proficiency in music with the best masters of Italy and Germany, and lived in the closest intimacy with Mozart.

LINLEY, WILLIAM, 1767-1835; son of Thomas; educated at Harrow and St. Paul's schools. For several years he was in the service of the East India company at Madras and Calcutta. He returned from India early with a competence, and devoted the remainder of his life to literature and music. Of music he was passionately fond, and produced a number of glees which evinced much originality and taste. He published also a set of songs, two sets of canzonets, and many detached pieces, and compiled *Dramatic Songs of Shakespeare*, 2 folio volumes, a work of much research, in which are several of his own elegant compositions. He wrote also two novels, and two comic operas which were performed at Drury Lane. He wrote besides an elegy on the death of his sister Mrs. Sheridan.

LINN, a co. of e. Iowa, intersected by the Cedar and Wapsipinicon rivers, and drained in part by Buffalo and Prairie creeks; traversed by the Chicago and Northwestern, the Dubuque and South-western, and the Burlington, Cedar Rapids and Minnesota railroads; 720 sq.m.; pop. '80, 37,235. The surface is undulating, and diversified with prairies and forests, the latter filled with hard timber. The soil is fertile and well watered, and rests partly upon a limestone foundation. Wheat, corn, oats, hay, butter, cattle, and pork are staple products. The city of Cedar Rapids is in the county. Valuation of real and personal property, \$15,412,248. Capital, Marion.

LINN, a co. in e. Kansas, bordering upon Missouri; intersected by the Osage river, and drained in part by Big Sugar and North Sugar creeks; traversed by the Mississippi River, Fort Scott and Gulf railroad; 630 sq.m.; pop. '80, 15,299. About 90 per cent of the surface is prairie, while forests grow along the streams. The soil is fertile, producing excellent crops of wheat, corn, oats, and hay. Large numbers of cattle are raised, and butter is a staple production. Limestone and bituminous coal abound. Valuation of real and personal property, \$5,002,650. Capital, Mound City.

LINN, a co. in n. Missouri, intersected by Locust and Yellow creeks, and drained by Muscle river, and several affluents of Grand river, which touches the s.w. corner of the county; traversed by the Hannibal and St. Joseph railroad; 648 sq.m.; pop. '80, 20,016, of whom 14,499 were of American birth. The surface is undulating, and much of it is covered with forests. The soil is fertile, and the chief staples are corn, oats, wheat, cattle, and pork. Valuation of real and personal property, \$6,500,000. Capital, Linneus.

LINN, a co. in w. Oregon, bounded n. by the n. fork of the Santiam river, and w. by the Willamette; drained by the Calapooya river and the s. fork of the Santiam; intersected by the Oregon and California railroad; 2,350 sq.m.; pop. '80, 12,675, of whom 8,474 were of American birth. The surface is diversified with mountains, prairies, and extensive forests. Mount Jefferson, a high peak of the Cascade range, covered with perpetual snow, stands on the e. border of the county. The soil of the valleys and prairies is very productive. The chief productions are wheat, oats, butter, hay, lumber, and wool. The quantity of wheat raised in 1875 was 998,626 bushels. Valuation of real and personal property, 5,500,000. Capital, Albany.

LINN, JOHN BLAIR, D.D., 1777-1804; b. in Shippensburg, Penn., but removed in childhood to New York; graduated at Columbia college in 1795, when but 17 years old, and was afterwards a student in the law office of Alexander Hamilton. A "serious

drama," written by him and entitled *Bourville Castle, or the Gallic Orphan*, was brought out at the John street theater, in 1797, but was not successful. Not long after this he abandoned the law and studied theology under the rev. Dr. Romeyn at Schenectady. In June, 1799, he became assistant pastor of rev. Dr. Ewing's church in Philadelphia. In 1800 he wrote a poem on the *Death of Washington*, and in 1802 published *The Powers of Genius*, a poem of about 600 lines, which was well received, soon reaching a second edition, and being reprinted in England. In 1803 he entered into controversy with Dr. Priestley, occasioned by the latter's comparison of Socrates with Jesus. He conducted his side of the debate so well that the university of Pennsylvania conferred upon him the title of D.D. Died in Philadelphia of consumption.

LINN, WILLIAM, D.D., 1752-1808; b. near Shippensburg, Penn.; graduated at Princeton in 1772; studied theology with the rev. Dr. Cooper of Middle Spring, Penn., and licensed to preach in 1775. He served for a time as a chaplain in the revolutionary war, afterwards taught an academy at Somerset, Md., became pastor of a church in Elizabethtown, N. J., in 1786, and a few months later, one of the pastors of the collegiate Dutch reformed church in New York, where he remained until 1805, when the state of his health compelled him to retire. He was distinguished as an eloquent and successful preacher. He published *Discourses on Scripture History; The Signs of the Times*, a series of essays in favor of the French revolution; a *Funeral Eulogy of Gen. Washington*, and many separate sermons. Died at Albany.

LINNÆA, a genus of plants belonging to the order caprifoliaceæ or honeysuckle family. It contains only one species, *L. borealis*. It was found by Linnæus in Lapland in 1732 and named after him by Gronovius. Calyx 5-pointed, oval-shaped, deciduous. Corolla narrow, bell-shaped, five-lobed. Stamens four, two shorter, inserted towards the base of the corolla. Pod, three-celled, but having only one seed, the other two cells having abortive ovules. It is a slender creeping and trailing little evergreen, somewhat hairy, rounded oval leaves contracted at the base into short petioles, and thread-like upright peduncles having two pedicels at the top, each bearing a delicate and fragrant nodding flower. Corolla purple and whitish, hairy inside. It inhabits the more northern parts of Europe, Asia, and America—found in moist, mossy woods and cold bogs; British America and northern United States; and grows somewhat rarely in New Jersey and in the mountainous parts of Maryland.

LINNÆ'US. See LINNÉ, *ante*.

LINNELL, JOHN, b. London, 1792. In 1805 he was pupil of John Varley, father of the present school of water-color painting. In 1807 he exhibited at the academy "Fishermen, a Scene from Nature." The same year he received a medal at the Royal academy for a drawing from the life, and in 1809, at the British institution, the prize of 50 guineas for the best landscape. He painted many views in Wales and elsewhere, and in 1821 exhibited landscape and portraits. His paintings in earlier years were portraits, but subsequently he devoted himself to landscape and figure painting. His chief works are: "The Morning Walk," "The Windmill," "A Wood Scene," "Eve of the Deluge," "The Return of Ulysses," "Christ and the Woman of Samaria," "The Disobedient Prophet," "The Timber Wagon," "Barley Harvest," "Under the Hawthorn," "Crossing the Brook," "The Last Gleam before the Storm," "Harvest Showers," "A View in Windsor Forest." Among his numerous portraits are "A Family Group—the Artist's Children," those of several fellow-artists, sir Robert Peel, and Thomas Carlyle. Linnell's portraits are in a unique style, deeply studied in character, simple and real, and he ranks among the best landscape-painters.

LINSLEY, JOEL HARVEY, D.D., 1790-1868; b. in Cornwall, Vt.; graduated at Middlebury college in 1811, and was tutor there three years; studied law, and practiced in Middlebury until 1822, when he was ordained as a Congregational minister; spent some time in South Carolina as a missionary; was pastor of the South Congregational church in Hartford, Conn., from 1824 to 1832, and of Park street church, Boston, from 1832 to 1835, when he was elected president of Marietta (O.) college, a post which he held for 10 years. In 1847 he became pastor of the Second Congregational church in Greenwich, Conn., and remained there until his death.

LINTON, ELIZA LYNN, wife of W. J. Linton, b. at Keswick, Cumberland, Eng., 1822. She is the author of a series of papers, *The Girl of the Period*, which attracted wide attention several years ago while they were passing through the *Saturday Review*. She has published several novels, among them *Azeth, the Egyptian; Amymone, a Romance of the Days of Pericles; Realities*, a romance of modern life; *Lizzie Lorton of Greyrigg; Sowing the Wind; The True History of Joshua Davidson; Christian and Communist; Patricia Kemball*.

LINTON, WILLIAM JAMES, b. London, 1812; apprenticed to Mr. G. W. Bonner in 1828; was partner in 1842 of Mr. Orrin Smith, the distinguished wood-engraver, and with him was engaged in the first works published in the *Illustrated London News*. In his younger days he was a zealous chartist, intimate with the Italian, French, and Polish refugees, in whose meetings he took an active part; was deputed by the British workmen to carry to the French provisional government their first congratulatory address; was in 1851 one of the founders of the newspaper, the *Leader*; became in 1855 the editor and

manager of *Pen and Pencil*; and for several years was a regular contributor to the *Nation*. He contributed papers to the *Westminster Review*, *Examiner*, and *Spectator*. As an engraver on wood he holds the first rank. He prepared and illustrated *The History of Wood Engraving*; *The Works of Deceased British Artists*; several volumes of *The English Republic*. He published also *Claribel and other Poems*; *Life of Thomas Paine*. In 1867 he came to the United States, resided several years in New York, executed many superior works, and removed to New Haven, where he has a large engraving establishment.

LIN-TSING, a large and populous t. of China in the province of Shantung at the junction of the imperial canal and the Eu-ho river, 200 m. s. of Pekin. It has an octagonal pagoda of nine stories, built of porphyry, granite, and varnished bricks; and several temples, in one of which is a colossal idol of gold. The town has a large trade by the canal.

LINUM, the genus of plants of which common flax is the most important variety, the others being cultivated not for their fiber, but for ornament. Among these is the perennial flax of the western states, which grows to a height of 18 in., with tufts of slender stems with delicate blue flowers. Other varieties are found in Algiers and Texas.

LINUS, a Christian at Rome, known as one of those who sent salutations by Paul to Timothy. Irenæus, in the latter half of the 2d c., says that "Peter and Paul, when they founded and built up the church at Rome, committed the office of its episcopate to Linus." Eusebius in the first half of the 4th c., followed by Theodoret in the 5th, Baronius in the 16th, and Tillemont in the 17th, states that Linus became bishop of Rome after the death of Peter.

LIPANS, a warlike, uncivilized tribe of Indians, found in Texas and parts of Mexico. A few of the tribe were reported to be living in 1872 upon the reservation of the Mescalero Apaches in New Mexico.

LIPPE-SCHAUMBURG. See SCHAUMBURG-LIPPE, *ante*.

LIPPINCOTT, SARA JANE (CLARKE), b. at Pompey, N. Y., 1823; educated at Rochester, N. Y., and removed in 1843 to New Brighton, Penn. She began to write at an early age under the *nom de plume* of "Grace Greenwood." In 1853 she was married to Leander K. Lippincott, soon after which she traveled extensively in England and upon the continent. Among her works are *Greenwood Leaves*; *History of My Pets*; *Poems*; *Haps and Mishaps of a Tour in England*; *Merric England*; *Stories from Famous Ballads*; *Records of Five Years*; and, *Life in New Lands*. She established in 1854 *The Little Pilgrim*, a paper for children, which for several years had a wide circulation. She has appeared extensively upon the platform as a lecturer and dramatic reader, and manifested a deep interest in the movement for the enlargement of woman's opportunities for education and remunerative work. She has also been a correspondent at Washington and other places of a number of the leading journals of the country. It is understood that she is deterred from literary labor at present by ill health.

LIPSCOMB, ANDREW A., D.D., LL.D., b. in Georgetown, D. C., Sept. 6, 1816. His father's family removed to Virginia, and, in 1842, he went to Montgomery, Ala., where he won great distinction as a minister of the Methodist Protestant church. In 1860 he became chancellor of the university of Georgia, where he continued until 1874. In 1875 he accepted a professorship in the Vanderbilt university, Nashville, Tenn.

LIPSIUS, JUSTUS, 1547-1606; b. at Isque, near Brussels; educated at Brussels, Louvain, and the Jesuits' college at Cologne. The Jesuits, in view of his talents and learning, endeavored to draw him into their order, but were defeated by his removal, through the influence of his mother, to the university of Louvain. There, to his favorite studies of philology and philosophy, he added jurisprudence. His talent was precocious, and at the age of 19 he published in 1567 his first work, *Varie Lectiones* of some of the principal Roman authors. This he dedicated to cardinal de Granville, who appointed him his Latin secretary. Accompanying the cardinal to Rome, he remained for two years, associating with learned men, and studying the MSS. in the Vatican and other libraries. In 1577, leaving Italy, he settled at Jena as professor of history and eloquence, and became a Protestant. In 1579 he became professor of history at Leyden, where he was held in high repute. Resigning in 1591 he retired to Spa and afterwards to Mentz, where, in the same year, he returned to the Roman Catholic church, and published two treatises in defense of the worship of saints and of their miraculous powers. While at Spa and Liege he was offered preferments by princes and dignitaries of the church; but he rejected the offers and returned to Louvain, where he was made professor of history and eloquence, remaining there till his death. Of his numerous works the most important are: *De Constantia Manuductio ad Philosophiam Stoicam*; *Physiologie Stoicorum libri tres*; *De Militia Romana libri quinque*. His commentary on Tacitus was the work in which he chiefly distinguished himself. His works were collected under the title of *Opera Omnia*. At his death he was historiographer to the king of Spain.

LIPSIUS, JUSTUS HERMANN, b. at Leipsic, May 9, 1834; in 1866 became rector of a gymnasium in that city, and has published critical remarks on *Sophocles* and *Lysias*.

LIPSIUS, RICHARD ADELBERT, b. at Gera (Reuss), Germany, Feb. 14, 1830; studied at Leipsic, and became professor of theology there in 1859; in 1861 he was appointed professor of theology at Vienna; in 1865 at Keil. He has published *The Pauline Doctrine of Justification*; *The First Epistle of Clement of Rome*; *On Gnosticism*; *On the Sources of the Writings of Epiphanius*; *The Catalogue of Popes in Eusebius*; *Chronology of the Bishops of Rome to the Middle of the Fourth Century*, and numerous articles in German periodicals.

LIPTO', a co. of n. Hungary, drained by the Wang, an affluent of the Danube; 872 sq.m.; pop. in '70, 79,273, mostly Slavs. The inhabitants are engaged chiefly in agriculture and the raising of cattle; but there are mines of gold, silver, copper, and iron. Capital, Szent-Miklós.

LIQUATION, or ELIQUATION, a method of reducing silver ores by means of a triple alloy of copper, silver, and lead, which, being cast into disk-shaped masses, are placed on edge in a furnace on an inclined plane of iron, containing a small channel, and raised to a red heat; the lead, on melting out, by its attraction for silver, carries that metal with it, leaving the copper as a reddish-black spongy mass.

LIQUID, a consonant pronounced by a closure of the vocal organs greater than is required in the utterance of the closer vowels, but less than is demanded by the mute consonants. The liquid consonants are *l*, *r*, *w*, *y*, which are all subject to whispered aspiration.

LIQUIDATED DAMAGES. The amount of damages fixed beforehand by the terms of an agreement as the definite sum to be paid by the party to such agreement who violates such agreement. The courts, which construe strictly and will relieve against penalties, will in general support a stipulation for liquidated damages for a breach of contract, but they will hold any particular stipulation to be either a penalty or liquidated damages, according as they determine the intent of the parties as evidenced by the tenor of the whole instrument. If that intent be still ambiguous, the stipulation will be declared a penalty. But if it appear that there is no means to properly find out the damages sustained, the stipulation will be held to be an agreement for liquidated damages, even if it be called a penalty in the agreement itself.

LISAINÉ, BATTLE OF, a famous engagement in the Franco-Prussian war, which raged for three days on the small French river Lisaine, which rises at the southern termination of the Vosges, flows w. of the fortress of Belfort, and enters the Savoureuse at Montbéliard. The German gen. von Werder retreated before the French under Bourbaki; and took a position along the Lisaine, in order to prevent the French from attacking the German troops before Belfort, or from making an invasion at that point into Germany. Von Werder, with a force of 43,000 men, well supplied with heavy guns, held a distance of about 10 m. on the left bank of the river, which commands the right bank. The villages along the stream were barricaded. Bourbaki, with 120,000 men, made desperate efforts to drive the Germans from their position, but the latter were so strongly fortified that these efforts were without avail. It was one of the severest engagements of the war. The German loss in killed and wounded was 81 officers and 1847 men; the French loss was 6,000.

LISLE, GUILLAUME DE, 1675-1726; son of Claud de Lisle, geographer and historian; b. in Paris. At an early age he devoted himself to historical and geographical studies, and when but 9 years old constructed several charts of ancient history. He completely reconstructed the system of geography current in Europe at the beginning of the 18th c. by the publication of maps in which he corrected errors inherited from the time of Ptolemy. He also constructed a celestial and a terrestrial globe. He was admitted to the academy of sciences in 1702, and afterwards appointed tutor in geography to Louis XV., who created for him in 1818 the title of "first geographer to the king," with a pension of 1200 livres. He is said to have drawn no less than 134 maps. A corrected edition of his map of the world appeared in 1724. He contributed several memoirs to the *Collections* of the academy of sciences.

L'ISLET, a s. co. of the province of Quebec, Canada; bounded s.e. by Maine and n.w. by the St. Lawrence; traversed by the Grand Trunk railroad; 793 sq.m.; pop. '71, 13,517, of whom 13,375 were of French descent. Capital, St. Jean Port Joli.

LIS PENDENS, a pending suit. Pendency of a suit begins, at law, as soon as an attachment is made under the writ; at equity, with the service of the subpoena on the defendant. Every one who takes any step in regard to the property affected by the pending suit is presumed at equity to have notice of such suit, and his rights will be correspondingly affected; thus, a purchaser of such property, though never made party to the suit, takes subject to the decree made in it; and a suit pending, brought by a prior mortgagee whose mortgage has never been put on record, is held sufficient notice to a following mortgagee of the existence of the prior mortgage. Though these applications of *lis pendens* occur only in courts of equity, the legal doctrine, that a vendee holds by the same title as his vendor, and no better, amounts to much the same thing.

LISSA, anciently *Issa*, an island in the Adriatic, off the Dalmatian coast, and belonging to Dalmatia; 10 m. long, 5 broad; 43° 10' n. lat., 33° 51' e. long.; 38 sq.m.; pop. 7,000. It was long known to the ancients, and is mentioned by Scylax as a Greek colony. In Cæsar's time it was styled *nobilissimum earum regionum oppidum*, and Pliny

says the inhabitants were Roman citizens. It is often referred to by Polybius in his account of the Illyrian war. When besieged by Teuta, the siege was raised on the appearance of the Roman fleet, and the inhabitants placed themselves under the protection of Rome. It was afterwards a station for the Roman galleys in their wars with the kings of Macedon. Its shores are steep and rocky, and it is accessible only at a few bays. The soil is not fertile. The chief products are wine, oil, almonds, and anchovies. The island is noted in modern times for two victories, that gained by the British over the French in 1811, and that by the Austrians under gen. Tegethoff over the Italians under admiral Persano. Its two harbors are strongly fortified. Lissa or San Giorgio is the principal town and seaport on the n.e. shore, with a population of 2,800.

LIST, FRIEDRICH, 1789-1846; b. Reutlingen in Würtemberg; was for two or three years professor of political economy at the university of Tübingen; was elected member of the diet of Würtemberg, but was expelled in 1822 for his censure of the acts of the government, and condemned to ten months' imprisonment. He fled to Switzerland and Alsace, but returning in 1824 was imprisoned in the fortress of Asperg. Having received a pardon he emigrated to America and settled in Pennsylvania. In 1827 he published his *Outlines of a New System of Political Economy*, which attracted much attention. He became a large land-holder, and in connection with others settled the two towns of Port Clinton and Tamaqua in Schuylkill county. On the latter he discovered a valuable deposit of anthracite. At this time he was much interested in the establishment of railroads. In 1830 he was appointed U. S. consul at Hamburg, but soon came back to Pennsylvania, and in 1832 returned to Europe, acting for a while in 1833 as American consul at Leipsic. In 1837 he went to Paris, where he wrote several letters for the Augsburg *Allgemeine Zeitung*, which were afterwards published in a volume under the title of *Das Nationale System der Politischen Oekonomie*. In 1843 he established at Augsburg the *Zollvereinsblatt*, in which he advocated a national commercial system and a national fleet. He visited Austria and Hungary in 1844, and England in 1846 for the purpose of forming a commercial alliance between Germany and that country, in which his efforts were not successful. Depressed by the failure of his plans, the loss of his health and property, he shot himself in a fit of insanity. His works, with a biography, were published in 3 volumes in 1850 at Stuttgart.

LISTON, JOHN, 1776-1846; b. London; educated at Dr. Barrow's school; became second master of St. Martin's school, founded by archbishop Tenison. For acting in theatrical plays with the large boys he was expelled from the school, and went upon the stage, excelling in low comedy. He acted at the Haymarket theater in 1806, and afterwards at Covent Garden, Drury Lane, and the Olympic. He was greatly praised by Lamb, Hood, and others. He left the stage in 1837, having acquired a considerable fortune.

LITCHFIELD, a co. of Connecticut, forming its n.w. corner, and bounded n. by Massachusetts and w. by the state of New York; intersected by the Housatonic, Farmington, and Naugatuck rivers, and by the Housatonic, Naugatuck, and Connecticut Western railroads; about 900 sq.m.; pop. in '80, 52,043, of whom 44,609 were of American birth. The surface is hilly, and extensively covered with forests. The soil is for the most part fertile; hay, butter, cheese, tobacco, cattle, oats, and corn being the staple productions. The quantity of hay and butter produced in this county in 1870 exceeded that of the same articles in any other county of the state. The production of staples in 1870 was: 6,822 bush. of wheat, 50,444 of rye, 236,900 of corn, 257,606 of oats, 27,561 of buckwheat, 319,497 of potatoes, 1,048,569 lbs. of tobacco, 51,759 of wool, 1,617,850 of butter, 1,307,396 of cheese, and 109,415 tons of hay. There were in the county at the same time 6,076 horses, 22,514 milch cows, 6,482 working oxen, 17,477 other cattle, 17,824 sheep, and 7,232 swine. Water-power is abundant, and there is in the county a great variety of manufactures, including such articles as agricultural implements, brass and brass-ware, pins, carriages, cotton goods, cutlery and edge-tools, hardware, hats and caps, iron and machinery, needles, paper, plated ware, silk goods, tin, copper and sheet-iron ware, woolen and worsted goods, leather, flour, and lumber. Capital, Litchfield.

LITCHFIELD, a t., the county seat of Litchfield co., in n.w. Connecticut; pop. '80, 3,410. About 1800 ft. above the level of the sea, it is noted for the invigorating purity of its summer climate, and has become a favorite resort of summer boarders from New York. It is on high ground, between the Naugatuck and Shepaug rivers, near a beautiful lake, the largest in the state. The noble elms of the old streets and picturesque surrounding scenery have long made it celebrated. In 1784 a law school was established here by judge Tapping Reene, and conducted by judge James Gould from 1823 to 1838, which was at the time the most celebrated in the United States. Many of the most eminent jurists and statesmen of the country graduated there. The first ladies' seminary in the United States was established in Litchfield. The town had social refinement and culture; and Dr. Lyman Beecher gave celebrity to its pulpit (Congregational). Water-power from its lake has made it the seat of many manufacturing industries, including mills, for making paper, oil, satinets, and smelters for reducing and refining nickel ores found in the vicinity. The town is subdivided into five postal districts, viz.: Litchfield, Bantam Falls, East Litchfield, Milton, and Northfield. It has a private lunatic asylum, and the usual quota of public schools, churches, newspapers, and business houses.

LITCHFIELD, a city of Montgomery co., Ill., on the Indianapolis and St. Louis railroad, where it crosses the Wabash railroad, 45 m. s. of Springfield, and 50 m. n.e. of St. Louis. It is situated on a fine rolling prairie, and is the most populous town in the county. It has 7 churches, an Ursuline convent and academy, a high school, a Roman Catholic hospital, 2 newspapers, 2 banks, 2 steam flouring mills, workshops of the Indianapolis and St. Louis railroad, and several grain elevators. Pop. about 5,000.

LITER. See METRIC SYSTEM.

LITERARY PROPERTY (aside from copyright, trade-mark, and patent), the ownership by an author of his writings, apart from any connection with their publication or promulgation. In this sense the title is in the material and form of its subject, and not in any quality predicated on its market value; as, for instance, the abstract property which the author has in his unpublished play, and which, in this sense, is neither more nor less than that which inheres in the authorship of a letter. But it is to be observed that this property is not mere ownership; as in the case of an article which is a gift, a purchase, or a bequest. The title rests on the fact of creation, and is more akin to the interest which a father has in the productive capacity or earning faculty of his children than to anything else. To illustrate the specific distinction which characterizes this species of property, it may be observed that the author who inscribes and presents a written copy of verses to his friend does not, by these acts, part with this peculiar title. The recipient may give away the copy of verses, that being his; but if, by any chance, incident, or collusion, those verses are made public, the one to whom they were given becomes liable to prosecution therefor. The law holds this property to be transferable, by bequest, or by regular order of succession, or absolute gift, clearly stated. It cannot be seized by creditors for publication, and its unauthorized publication will be restrained in equity. Literary property is held at common law, but in the United States the copyright act recognizes the right of property in any manuscript whatever, including private letters.

LITERATURE, AMERICAN. See AMERICAN LITERATURE.

LITHGOW, WILLIAM, 1583-1614; b. Scotland; a traveler, who began by traveling on foot through central Europe, Italy, Greece, Turkey, Egypt, and Palestine, and presented a collection of relics to James I. and the queen on his return to England. His next tour was through the states of northern Africa, and through Hungary and Poland on his return. On his third journey he bore letters from king James commending him to all the royal heads of the countries which he might visit. At Malaga he was arrested on suspicion of being a spy, and subjected to shameful tortures. His *Adventures* were published in 1614.

LITHOD'OMUS, a genus of stone-boring mollusks belonging to the family of mus-sels, the type of which is the *Mytilus lithopagus* of Linnaeus.

LITIZ, a borough of Lancaster co., Penn., on the Reading and Columbia railroad, 20 m. s.w. of Reading. It has 3 churches; Linden hall, a well-known Moravian school for girls; a bank; a newspaper; and manufactures of beer, flour, coaches, machinery, cigars, etc. The town is an ancient settlement of the Moravians, who are still the chief element in its population and social life.

LITTA, POMPEO, Count; 1781-1852; b. Italy; in early life an officer in the French army, and participant in the battles of Ulm, Austerlitz, and Wagram. In the revolutionary epoch of 1848 in Italy he was for a short time secretary of war of the provisional government. His fame, however, rests on the authorship of a superb work on the celebrated families of Italy—*Famiglie celebri d'Italia*—which is commended equally for the fullness and accuracy of its biographies, the beauty of its typography, and the elegance of its style. Its first publication was by subscription in 1819. At the time of his death it embraced the history of 113 families. Others have been added since by Oderici and Passerini.

LITTELL, ELIAKIM; 1797-1870; b. Burlington, N. J.; in 1819 began to publish and edit at Philadelphia the *National Recorder*, afterwards the *Saturday Magazine*. In 1822 he established the *Museum of Foreign Literature*, and in 1844 founded *Littell's Living Age* in Boston, a periodical which is still continued, and greatly valued for its judicious selections from the current periodical literature of Europe. He drew up the Clay compromise tariff of 1833. Died in Brookline, Mass.

LITTLE, GEORGE; 1754-1809; b. Marshfield, Mass.; was commander of the armed vessel, *The Boston*, belonging to Massachusetts at the beginning of the revolutionary war; was first lieutenant on *The Protector* in 1779, when it was captured by a British frigate, and he was taken to England as a prisoner; having made his escape, he subsequently took command of the sloop *Winthrop* and cruised successfully till the end of the war; commanded the national frigate *Boston* in 1798; was made captain of the navy in 1799; retired to his farm in Weymouth in 1801, and lived there until his death. He wrote *The American Cruiser* and *Life on the Ocean*.

LITTLE CHRISTIANS, a new sect formed in 1868 by members of the Russo-Greek church living at Atkarsk in the province of Saratoff, Russia. There were at first but 16 members. They claim that Christ commanded them to form the new church. Before doing it they were immersed, and fasted, and changed their names. They condemned worship of saints and altar-pieces as idolatrous, and abandoned the use of bread and wine

in the Lord's supper. Dixon in his *Free Russia* says: "They have no priests, and hardly any form of prayer. They keep no images, use no wafers and make no sacred oil. Instead of the consecrated bread, they bake a cake, which they afterwards worship, as a special gift from God. This cake is like a penny bun in shape and size, but in the minds of these *Little Christians* it possesses a potent virtue and a mystic charm." They gave themselves the name they bear. They have been persecuted by the government, but have increased in numbers.

LITTLEDALÉ, RICHARD FREDERICK, b. Dublin, 1833; graduated in Trinity college, Dublin, 1854; was ordained in the church of England, 1856; and after a few years of parochial service in London, devoted himself to authorship on ecclesiastical questions, making a special study of liturgies and of the relations between the national church and dissenting bodies. He is author of *Philosophy of Revivals*; *Offices of the Holy Eastern Church*; *Catholic Ritual in the Church of England*; and many other works.

LITTLE FALLS (*ante*), a t. and village of Herkimer co., N. Y., on the Mohawk river the Erie canal, and the New York Central railroad, 73 m. w.n.w. of Albany. Pop. of the town, '80, 6,911. The river here passes through a narrow gorge, and has a fall of more than 40 ft. in three-fourths of a mile, affording abundant water-power. The Erie canal passes by a deep cut 2 m. long in solid rock, presenting a most picturesque appearance, and the feeder crosses the river by an aqueduct with an arch of 70 ft. span. Many of the dwellings in the village stand upon steep declivities, commanding views of attractive scenery. The place contains 8 churches, a bank, 2 newspapers, an academy, and manufactories of cotton, paper, starch, axes, woolens, boots and shoes, etc. It is also the center of a considerable trade in cheese.

LITTLE HUMBOLDT RIVER, in Humboldt co., Nev.; a tributary of the Humboldt river from the n.w., flowing from an elevation of 4,500 ft., through the fertile Paradise valley, where large areas of excellent bench-land and bottom-land are subject to easy irrigation from it. It is about 250 m. by sea n. from San Francisco.

LITTLEJOHN, ABRAM NEWKIRK, D.D., LL.D., b. N. Y., 1824; graduated at Union college in 1845; ordained deacon in the Protestant Episcopal church in 1848; admitted to priest's orders in 1849; was rector of Christ church, Springfield, Mass., in 1850, of St. Paul's church in New Haven 1851-60, and of the Holy Trinity church in Brooklyn 1860-69. He declined the offer of the presidency of Hobart college in 1858, and the appointment as bishop of central New York in 1868. In 1868 Long Island was made a separate diocese, and Dr. Littlejohn was elected its bishop and consecrated in 1869. He was appointed by the presiding bishop in 1874 to take charge of the American Episcopal church in Europe. His contributions to periodicals, especially the *Church Review*, have been numerous. In 1854 he delivered a course of lectures on the *Philosophy of Religion* in Philadelphia. He has published also sermons, charges, and addresses. His diocesan administration has shown high executive ability.

LITTLE KANAWHA RIVER, of western Virginia; a tributary of the Ohio river, emptying at Parkersburg, and having its source in Upshur county. It is in the coal-oil district, and for the transportation of oil and other commodities, slack-water navigation has been created up the river 38 m. to Burning Springs by means of three dams and locks. It flows through a hilly country well suited to sheep growing, and is bordered by rich bottom-lands. Logs for lumber were formerly the principal product of its region.

LITTLE RIVER, a co. of s.w. Arkansas, bordering upon Texas and the Indian territory, and lying between Little and Red rivers; 500 sq.m.; pop. '80, 6,404, of whom 3,342 are colored. It has a diversified surface and a fertile soil. Cotton, corn, and pork are staple products. Valuation of real and personal property, \$1,289,241. Capital, Richmond.

LITTLE ROCK (*ante*), capital and chief city of Arkansas; pop. '80, 13,185; so named in antithesis to Big Rock, an elevation on the opposite side of the Arkansas river, nearly 500 ft. in height; that on which the city stands being not more than 40 or 50 ft. above the shore. It is handsomely laid out, with broad streets; the business blocks of brick, and the residences surrounded by ornamental gardens and shade-trees; reached by the Little Rock and Fort Scott, the Memphis and Little Rock, and the St. Louis, Iron Mountain and Southern railroads. The state-house and St. John's college are prominent public buildings; and there are a U. S. arsenal and land-office, state penitentiary, and state institutions for deaf mutes and for the blind. Steamers on the Arkansas river touch at Little Rock, and it is a considerable commercial center. The city is considered remarkably healthful.

LITTLE SISTERS OF THE POOR, a Roman Catholic sisterhood originated by M. Le Pailleur at St. Servan, France, in 1840. Their function is to care for the poor and old. They have several houses in the United States.

LITTLETON, an agricultural and manufacturing t. of Grafton co., N. H., on Ammonoosuc river and the Boston, Concord and Montreal railroad. As it is but 28 m. from Mt. Washington, it is also a summer resort. It is well supplied with hotels, banks, churches, and schools; and has a newspaper, a woolen mill, and several factories, the making of stereoscopic views being a specialty. Pop. 2,446.

LITTLETON, ADAM, D.D., 1627-94; b. at Hales-Owen, Shropshire, Eng.; educated at Christ church, Oxford, where he took a high rank in the classics; was successively

rector of Chelsea, chaplain to king Charles II., and in 1674 prebendary of Westminster. He was a distinguished oriental scholar, and made a collection of rare books and manuscripts so large that it brought him to bankruptcy. He wrote much on recondite subjects, and published a number of sermons; but his principal work was the *Dictionary of the Latin, Greek, Hebrew, and English Languages*, of which several editions were published. He was a descendant of sir Thomas Littleton. Died at Chelsea.

LITTLE TURTLE, d. 1812; an Indian chief of the Miami nation, distinguished for his intelligence, shrewdness, and courage; date of birth unknown. He commanded in the battles which resulted in the defeat of gen. Harmar on the Miami in 1790, and of gen. St. Clair at St. Mary's in 1791; was present, though not in command, at the battle of Maumee Rapids in 1794, when the Indians were defeated by gen. Wayne; was one of the signers of the treaty of Greenville in 1795, which closed the war and secured to the whites large tracts of land in Ohio. In 1797 he visited pres. Washington in Philadelphia, on which occasion he had an interview with Volney, the French philosopher, and received from Kosciusko a pair of pistols, elegantly mounted. Died at Fort Wayne

LITTLE VALLEY, a t. in Cattaraugus co., N. Y.; pop. '70, 1108; situated on the Erie railroad, and near the Alleghany river. The leading business interest is farming and dairying, though there are also steam mills, stores, and a generally active condition of affairs.

LITTORALE, or LITORALE, a province of the Austro-Hungarian monarchy, situated on the n. shores of the Adriatic sea, and including the neighboring islands. It comprises the counties of Görz and Gradisca, the margraviate of Istria, and the district of Trieste; 3,085 sq.m.; pop. 600,525. In former times the name was applied to two strips of land on the n. shores of the Adriatic, the eastern one of which has figured in Hungarian history. It was once a part of the Croatian military territory, was made a civil district of Hungary by Maria Theresa, formed a part of the French province of Illyria under Napoleon, was recovered by Austria in 1814, reannexed to Hungary in 1823, occupied by Croatia in 1848, and attached to that province by Francis Joseph in 1849. The principal towns of the province are Buccari and Porto Re.

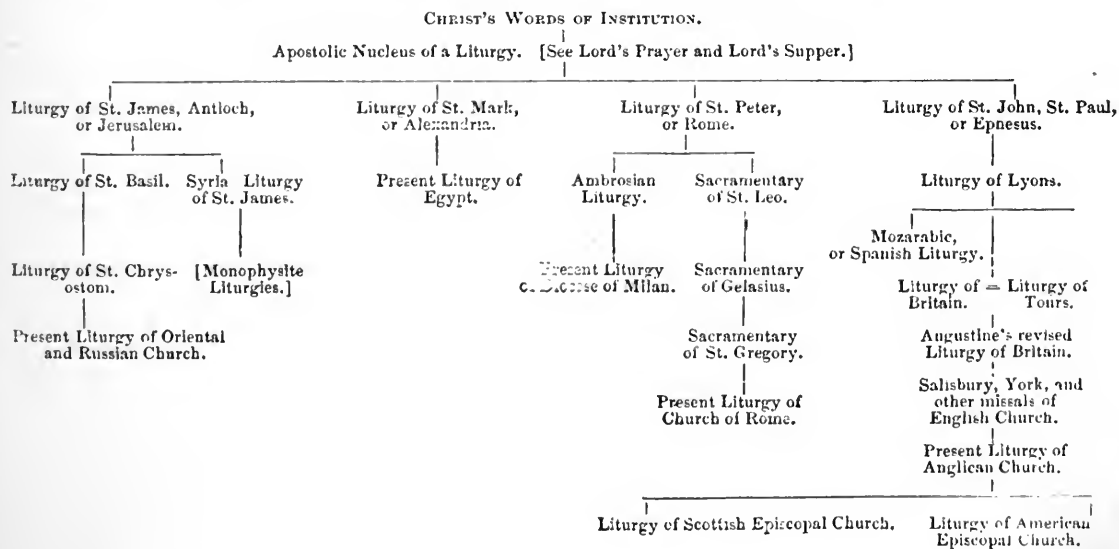
LITTROW, JOSEPH JOHANN VON, 1781-1840; b. Bohemia. First a professor of astronomy at Cracow; afterwards at the university of Kazan, in the city of the same name, 430 m. e. of Moscow. In the later years of his life he became professor of astronomy in the university of Vienna, and director of the observatory, in the management of which he became eminent. His lectures were extremely popular. His published works are: *Die Wunder des Himmels*, which has passed through several editions; *Theoretische und practische Astronomie*; and *Atlas des gestirnten Himmels*. Died in Vienna.

LITURGY (*ante*). I. In the modern church of Rome several books are in use, some of them by the members generally, others restricted to particular ranks and orders. 1. *The Breviary* contains the daily service of the church of Rome, consisting of the matins and lauds, with variations for different days and canonical hours. It may be employed in all places, but on the model of it other books have been formed for the special use of the Benedictine, Carthusian, Dominican, Franciscan, Jesuit, and other orders. At first it contained only the Lord's prayer and portions of the Psalms, to which Scripture lessons were afterwards added. In ages called, according to the point of view from which judgment is formed, ages of superstition or ages of faith, legendary lives of the saint were inserted, which led to a frequent revision and correction of the breviary, particularly by the councils of Trent and Cologne, by popes Gregory IX., Nicolas III., Pius V., Clement VIII., and Urban VIII., and cardinal Quignon, by whom it was brought nearer to the simplicity of primitive times. At present it consists of services for seven hours, to correspond with David's declaration, "Seven times a day do I praise thee." The obligation to read this book every day, at first imposed on all, was gradually restricted to the beneficiary clergy, who, if they neglect the duty, incur the guilt of mortal sin, and forfeit a part of their revenues proportioned to their delinquencies. It is recited in Latin in Roman Catholic churches everywhere, except among the Syrian Maronites, the Armenians, and other oriental churches who, submitting to the pope's jurisdiction in other respects, are allowed to use the service in their own language (see EASTERN, OR ORIENTAL RITE). 2. *The Missal*, used in celebrating the mass and ascribed by Roman Catholic tradition to the apostle Peter. The canon of the mass, first reduced to writing in the 5th c., was afterwards enlarged, especially by Gregory the great. It is in general use throughout the Roman Catholic church. 3. *The Cereimoniale*, having special reference to the pope, is divided into three books, the first of which treats of the election, consecration, benediction, and coronation of the pope; the canonization of saints, creation of cardinals, the form and mode of holding a council; various public ceremonies to be performed by the pope as a sovereign prince; and funeral solemnities for cardinals and popes: the second book contains the divine offices which the pope celebrates, and the days devoted to them: the third prescribes the reverence due to popes, cardinals, bishops, and other persons intrusted with sacred duties; the order in which they are to be seated in the papal chapel; the sacred vestments and ornaments of popes and cardinals; and the offering of incense at the altar. 4. *The Pontificale* describes the functions of Roman Catholic bishops: the conferring of ecclesiastical orders; benedictions on abbots, abbesses, and nuns; coronation of sovereigns; consecration of

churches, cemeteries, and sacred vessels; the expulsion and reconciliation of penitents; the holding of synods; suspending, reconciling, dispensing, deposing, and degrading priests, and restoring them to orders; excommunication and absolution. 5. *The Rituale*, named also the *Pastorale*, treats of the functions of priests or inferior clergy in their public services and private pastoral duties.

II. At the reformation the existing liturgies were modified in doctrine and translated into the common languages of the people for use in the reformed churches. 1. Among these reformed liturgies those of Luther led the way. Different offices were prepared by him between the years 1523 and 1534. These were afterwards collected into a volume. In his "Order of Service" provision was made for morning and evening service; consisting of reading the Scriptures, preaching or expounding, with psalms and responses, and mass or communion for Sundays. Other leaders, also, in Lutheran churches, drew up liturgies for themselves. These were afterwards changed as circumstances required. No one form has been made obligatory in all Lutheran churches, yet there is substantial unity of life and spirit in them all. The rationalists of the last century neglected and mutilated the old liturgies, and strove to introduce others in place of them. But with the return to orthodoxy a salutary reaction followed, which has been shown in the study and use of the old forms and in the construction of the union liturgy, first published in 1822 under the auspices of the king of Prussia, and twice revised since then. The object of this last book is to unite the worship of the Lutheran and reformed churches in the Prussian dominions. 2. The liturgy of the renewed Moravian church is chiefly the work of count Zinzendorf, who compiled it from the services of the Greek, Latin, and reformed churches. It consists of a church litany for the usual Sunday morning service; a litany for the morning of Easter-Sunday, containing a brief confession of faith; offices for the baptism of adults and of children; litanies for funerals; offices for confirmation, the communion, and ordination; the *Te Deum* and various doxologies. There is also a choral with musical responses, a prayer of betrothal, a form used in the church-yards on Easter for expressing the hope of the resurrection concerning the brethren departed during the preceding year. The daily service, held in the evening, is a simple prayer meeting in which, as in the Sunday service, the prayers and exhortations are extemporaneous. 3. In the liturgy of Calvin the service began with a general confession, followed with a psalm, a second prayer, the sermon, prayer, the apostle's creed, and the benediction. There was also a long prayer for times of war and of other troubles. In the administration of the Lord's supper there was an introductory prayer, followed with a practical exhortation, the distribution of the elements, psalms, appropriate passages of Scripture, and the closing prayer. There were also simple, but long offices for baptism and marriage. The present liturgy of Geneva has been taken from Calvin's, with some modifications. It contains no responses, but has several additional prayers. It provides a service for each day of the week, for the principal festivals, and several special occasions. The Calvinistic churches of Holland, Neufchatel, and France have liturgies similar to that of Geneva. That of the church of Scotland was drawn up at Frankfort by John Knox and others on Calvin's model, and was first used by Knox in the congregation of English exiles at Geneva. Introduced by him into Scotland, its use was enjoined in 1564, and was continued after his death. Having a general order like Calvin's, it also gave a clearer discretion to the minister to use prayers of his own composition, either extemporaneous or written. It contained various offices and alternate forms. A new book, somewhat modified, was provided in 1644. In the directory of the Westminster assembly, the discretionary power allowed to the minister is greatly enlarged. The Lord's prayer is recommended as the most perfect form of devotion. Private and lay baptisms are forbidden. The communicants are to sit, instead of kneeling, at the Lord's table.

TABLE OF THE DESCENT OF THE PRINCIPAL LITURGIES NOW IN USE.



LIU-KIU, or LIU-TCHIU. See Loo-Choo, *ante*.

LIVE OAK. See OAK, *ante*.

LIVE OAK, a s. co. of Texas, intersected by the Rio Nueces; 1200 sq.m.; pop. in '70, 852, of whom 28 were colored. The soil for the most part is best adapted to stock-raising, but there is considerable tillable land in the valleys. Rains in summer are infrequent. In 1870 there were in the county over 5,000 horses, more than 600 milch cows, 62,177 other cattle, 5,024 sheep, and 681 swine. Capital, Oakville.

LIVER (*ante*). The physiological anatomy of the liver may be briefly stated as follows: The lobules mentioned in the preceding article are about $\frac{1}{25}$ of an in. in diameter and of an ovoid shape. They are surrounded by a plexus of blood-vessels, nerves, and ramifications of the hepatic duct, comprising what are called the interlobular vessels. These are all inclosed by a sheath which is a prolongation of the proper coat of the liver (capsule of Glisson), but attached loosely by areolar tissue. This sheath follows the vessels to the subdivisions within the interlobular spaces (spaces between the lobules), but does not extend to the capillary vessels *within* the lobules. In a few animals, as the pig and polar bear, the lobular structure can be seen with the naked eye, but in man and most mammals it cannot. The lobules are intimately connected with each other, branches of the interlobular vessels being each distributed to several of the lobules. Any one lobule, however, may be considered as representing the physiological anatomy of the whole liver, and the study of its anatomy and functions will answer for the study of the whole gland. The lobules receive blood at their surfaces from the capillary terminations of the portal vein, these vessels having received the terminations of the hepatic artery before passing into the lobules. It is very important to bear in mind this peculiarity of distribution, which is often overlooked. The branches of the hepatic vein, the vessel which carries the blood from the liver to the ascending great vein (ascending vena cava), by which it is returned to the heart and lungs, have their origin *within* the lobules. Their capillary extremities arise from the capillary ramifications of the portal vein, and, passing toward the center of the lobule, converge into three or four radicles, which, uniting at the center, form the *intralobular* veins, which is the commencement of the hepatic vein. These intralobular veins, which are in the center of each lobule, are from $\frac{1}{1000}$ to $\frac{1}{400}$ of an in. in diameter, and they follow the long axis of the lobule, receiving vessels in their course till they empty into larger vessels situated at the base of the lobules. These latter vessels have been called by Kiernan sub-lobular veins. They collect the blood from all parts of the liver, and, increasing in size by union with one another, they at last form the three hepatic veins which discharge the blood from the liver into the ascending vena cava. Now, these hepatic veins are a long way from the influence of the heart's action, lying as they do between the portal circulation and the veins going to the heart; but a provision has been made to assist in the propulsion of their contents, and they are supplied with a muscular coat, composed of unstriated muscular fibers. The minute anatomy of the liver has only recently been satisfactorily investigated, and it is to the labors of Beale, E. Wagner, Garlach, Budge, Andréjevic, Koelliker, MacGillavry, Frey, Eberth, Hering, and others that we owe nearly all the knowledge we have upon the subject. The most essential elements of the lobule, or of the liver, remain to be described. They are the hepatic cells, which are the true secreting elements of the gland. They are minute, polygonal-shaped bodies about $\frac{1}{1000}$ of an in. in their longest and $\frac{1}{1500}$ in their shortest diameter, having one nucleus, or sometimes two nuclei, with some granular matter. See CELLS. It has generally been supposed that these hepatic cells were held within a net-work of the capillaries of the portal and hepatic veins, but, according to the investigations of the above named microscopists, this is not the case. They are surrounded by an independent network of extremely minute vessels $\frac{1}{10000}$ of an in. in diameter, of uniform size throughout, called the biliary capillaries, and in which the bile first makes its appearance.

We must pause here to refer to the fact that the liver is an organ which has no analogue in any of the other organs of the body. It has two distinct functions, and a cellular arrangement entirely unlike that seen in any other gland. It is excretory on one hand and secreting on another, and it is its secreting function which has been so long overlooked, and the knowledge of which has also thrown so much light on the physiology of what are called ductless glands, like the spleen (q.v.) and the lymphatic glands. The liver, in one of its functions, is a ductless gland. It secretes (that is, not merely separates, but forms) a substance which is not carried away by any excretory vessel, but which is immediately returned to the blood, when it is washed away as soon as formed. The other function of the liver is the production of bile, which, although a true excretion, answers a salutary purpose in the economy. Let us now return to the consideration of the hepatic cells and the lately discovered net-work of vessels which surrounds them, called the biliary capillaries. It is with the utmost difficulty that they have been made out, and it is owing to this that so many hypotheses have been formed in regard to the histology and physiology of the liver, only to be successively abandoned. The meshes which are formed by the passing round the hepatic cells of these minute capillaries are arranged in a cubical manner, very much as if they had been woven around them. The question has been whether these biliary capillaries possessed independent walls or whether they were simply lacunar passages; but the manner in which they have been found to interlace with

the blood capillaries decides the question in favor of considering them as vessels having walls, although their caliber is only $\frac{1}{10000}$ of an in., which would require the membrane which forms the tube to be inconceivably thin, and perhaps destitute of any cellular structure, as is generally found in lining membranes of most organs. The precise relations of the hepatic cells and the biliary ducts have been more particularly determined by the investigations of Eberth and Hering; and they find that they vary in different classes of vertebrata, being simpler the farther we descend in the scale of being. In amphibia, for instance, the lobular form is altered, and the bile duct passes through a tubular arrangement of hepatic cells. In reptiles the arrangement approaches more towards that of mammals, but is still far behind in development; and it is only when ascending to birds that a structure is reached capable of performing the excrementitious functions of active, warm-blooded animals. The biliary and blood capillaries never come into actual contact, but are always separated from each other by a distance somewhat less than the diameter of an hepatic cell, or about $\frac{1}{1500}$ of an inch. The biliary capillaries are undoubtedly the commencement of the finer hepatic ducts. In some diseases they become so distended with bile as to become easily discernible with a good microscope. The livers of animals dying of Texan-cattle disease were examined by the late Dr. R. C. Stiles a few years ago, and the observations of the German anatomists were completely verified. The finest bile ducts and capillaries in the livers of these animals were found filled with bright yellow bile, and their relations to the liver cells were easily distinguishable. Favoring the view that they are lined by an excessively thin membrane, Dr. Stiles found in his examinations what appeared to be detached fragments of these capillaries. Between the lobules the bile ducts are still very minute, the smallest being only $\frac{1}{2500}$ to $\frac{1}{3000}$ of an in. in diameter, and composed of a very delicate membrane lined with pavement epithelium. When they reach a size of $\frac{1}{1200}$ of an in. in diameter, they are supplied with a fibrous coat, composed chiefly of inelastic, with a few elastic fibers; but the larger ducts, as afore-mentioned, are supplied with non-striated muscular fibers.

We came now to speak of another anatomical element in the structure of the liver. As the bile ducts increase in size they contain numerous follicles and cluster-like glands which are called racemose (the biliary acini of Robin), and they continue to occupy the biliary passages as far as the *ductus communis choledochus*, or the common bile duct which empties into the intestinal canal. Those which are found in the smallest ducts are simple follicles from $\frac{1}{800}$ to $\frac{1}{400}$ of an in. in length. The larger of these glands are formed of groups of these follicles, and are from $\frac{1}{200}$ to $\frac{1}{100}$ of an in. in diameter. The nutrition of the liver is provided for by the hepatic artery, whose distribution is exceedingly interesting. It has three sets of branches. As soon as it enters the sheath formed by the capsule of Glisson, it sends off very fine branches, called *vassa vassorum*, to the walls of the portal vein, to those of the hepatic vein, to its own branches, and an exceedingly rich and beautiful net-work of branches to the hepatic duct. When the hepatic artery is well injected it almost completely covers the duct with its ramifications. The hepatic duct proper, or that single vessel so called lying outside of the liver, is formed by the union of two ducts, one from the right and one from the left lobe of the liver. It is about an inch and a half long, and joins the duct from the gall-bladder, called the cystic duct, to form the common duct, or *ductus communis choledochus*, which is about three inches long and of the size of a goose-quill, and empties, in common with the pancreatic duct, into the intestine, a little below the middle of the duodenum, or about 5 in. below the stomach. The gall-bladder is an elongated, pear-shaped sack about 4 in. in length and one in breadth, having a capacity of about one and a half fluid ounces. The cystic duct, connecting it with the hepatic duct, is the smallest of the three larger ducts, and is about one inch in length. In the gall-bladder there are also numerous small racemose glands similar to those above mentioned as existing in the biliary ducts generally. They consist each of from 4 to 8 follicles lodged in the submucous tissues. They secrete mucus mixed with bile. The idea has been entertained by some that these biliary racemose glands found in different parts of the biliary ducts were the bile-producing glands, while the hepatic cells were the organs for secreting sugar, or, in other words, for the conversion of the glycogenic matter of the liver into glucose, or grape-sugar; but this view has not been found tenable. The nerves of the liver are derived from the pneumogastric, the phrenic, and from the solar plexus of the great sympathetic. They all penetrate the gland at the great transverse fissure, and follow the blood-vessels in their course of distribution to the various parts of the organ, but their terminal distributions are not yet well understood. The lymphatic vessels of the liver are numerous and consist of two layers. The outer or superficial layer is situated immediately beneath the serous or peritoneal covering. The inner or deeper layer forms a plexus surrounding the lobules, having entered the liver along with the portal veins, hepatic arteries, and bile ducts, enveloped in sheaths of Glisson's capsule. In their course they invest the branches of both ducts and blood-vessels with a delicate net-work of tubes, and on arriving at the surface of the lobules they enter them and form another remarkable net-work of lymphatic passages, traversing the lobule in every direction. Every blood capillary is enveloped in a lymphatic sheath in very much the same manner that the interlobular vessels are enveloped in the sheath of Glisson's capsule. These lymphatic sheaths surrounding the other vessels are other-

wise called the perivascular lymphatic spaces, and are similar in structure to those which are found in various other parts of the body. See LYMPHATICS.

The two distinct functions, that of the production of bile and the formation of sugar, which are now generally recognized as being performed by the liver have led some physiologists to suppose that this gland is composed of two distinct portions or anatomical elements, and Robin has adopted this theory and calls one portion of the liver a biliary organ, and the other a glycogenic or sugar-forming organ. The lobules and hepatic cells, with their different vessels, he regards as performing the glycogenic function, and the little racemose glands which are attached to the biliary ducts along their course as the bile-producing organs; and others have entertained ideas of the independence of the sugar-making and bile-producing portions of the organ. But from the fact that bile is commonly found in the lobules, and that the biliary capillaries are connected with the excretory biliary ducts, the conclusion seems to be unavoidable that the bile is formed in the lobules, and, moreover, by the hepatic cells. It, therefore, becomes a question as to what are the functions of the little racemose glands attached to the larger bile ducts. They have much the form of mucous glands in other portions of the body, and from the examinations of Sappey, who has found the bile to be viscid in proportion to the number of these glands in the ducts containing it, they appear to be really mucous glands. In the rabbit, an animal in which these glands are not found in this situation, the bile is quite fluid, and free from its ordinary viscosity. It has generally been thought that the bile is secreted exclusively from the blood which has been brought from the intestines by the portal vein, and that, indeed, the principal office of the liver was to separate effete matter from this portion of the venous system; but many experiments which have been made since Bernard discovered the glycogenic function of the liver go to show this idea erroneous. It has also been thought that the hepatic artery may furnish material for the secretion of bile, while the portal vein furnished that for the production of sugar; but these views again are quite overthrown by many well-established facts and experiments. It has been found that, after the ligation of the hepatic artery, bile has been secreted from blood furnished by the portal vein; and again, according to the experiments of Oré, who has succeeded in gradually obliterating the portal vein without immediately producing death, it has been found that bile is secreted from blood furnished by the hepatic artery. In one instance in which a patient died of dropsy the portal vein was obliterated, and yet the gall-bladder was full of bile. Anomalous cases have been reported where the portal vein, instead of passing through the liver, emptied into the ascending vena cava, and where also there was found no deficiency of bile. These facts point to the conclusion that the secretory elements of the liver have an elective power, and that this gland may elaborate its products either from venous or arterial blood. The only conclusion, therefore, is that the liver produces bile from both the portal vein and the hepatic artery, and that the secretion may be kept up if either one of these vessels be obliterated. The natural color of bile is variable; in the pig it is bright yellow; in the dog, dark brown; and in the ox, greenish yellow. In general, it may be stated that it is dark green in carnivorous, and greenish yellow in herbivorous animals. Its specific gravity is variously stated. Some authorities place it at 1026; others from 1020 to 1026; and again others from 1026 to 1031. These differences are considerable, but the numbers were probably the result of exact observation, as the bile is found to differ under different circumstances. See table. Fresh bile is nearly inodorous, but after being taken from the body of an animal it soon undergoes putrefactive changes. It has been generally thought to be invariably alkaline, and this is true of that which is found in the hepatic duct, but it often has an acid reaction after it has passed into the gall-bladder.

COMPOSITION OF THE BILE, ACCORDING TO ROBIN.

Water.....	916.00 to 919.00
Taurocholate of soda.....	56.50 " 106.00
Glycocholate of soda.....	traces.
Cholesterine.....	0.62 to 2.66
Biliverdine.....	14.00 " 30.00
Lecithene	} 3.20 " 31.00
Margarine, oleine, and traces of soaps }	
Choline.....	traces.
Chloride of sodium.....	2.77 to 3.54
Phosphate of soda.....	1.60 " 2.50
Phosphate of potassa.....	0.75 " 1.50
Phosphate of lime.....	0.50 " 1.35
Phosphate of magnesia.....	0.45 " 0.80
Salts of iron.....	0.15 " 0.30
Salts of manganese.....	traces " 0.12
Silicic acid.....	0.03 " 0.06
Mucosine.....	traces.
Loss.....	3.43 to 1.21
	<hr/>
	1000.00 1000.00

The bile contains two classes of constituents, one of which are true secretions, and destined to re-enter the system and perform certain functions. They contain, with other matters, some that are formed in the liver, and are no doubt elaborated from materials furnished by the blood. These are the salts included in the above table under the names of taurocholate and glycocholate of soda. Biliverdine, the coloring matter of the bile, is probably a mixture of different coloring principles which undergo rapid change on exposure to the air. It has some analogy to the coloring matter of the blood, and it is also, like the biliary salts, supposed to be formed in the liver. This coloring matter has intense power, and in cases of obstruction of the biliary passages will give the skin and conjunctivæ a decidedly yellow color. Like hemoglobine, it contains a portion of iron, but the relative amount has never been ascertained. The other constituent of the bile is truly excretory, being composed of effete matter brought by the blood-vessels from the various parts of the system. This excretory constituent is *cholesterine*, a substance which has long been known as a constituent of the bile, whose chemical and physical characteristics were well recognized, but whose physiological relations were not understood. It was reserved for Dr. Austin Flint, jr., of New York, to discover these and make them known in the *American Journal of Medical Sciences* in 1862. Cholesterine is a normal constituent of various of the tissues and fluids of the body. It is found in the blood, liver (probably as contained in the bile), crystalline lens, spleen, meconium, and in the nervous tissue in all parts of the body. It is also found in an altered condition, as stercorine, in the fecal matter, and as unchanged cholesterine in hibernating animals. It is naturally a crystalline solid, but in the fluids of the body it is held in solution. For the form of the crystals, composition, and other characteristics, see CHOLESTERINE. This body is found in the largest quantity in the substance of the brain and nerves, and the blood coming from the brain contains a much larger percentage of it than is found in that coming from any other organ. From this and various other experiments, Dr. Flint has demonstrated that cholesterine is a disassimilative product of nervous function, and that one of the offices of the liver is to separate it from the blood. He found among other things that it is produced in much greater quantity under active conditions, and that it is also produced in all parts of the nervous system. Sometimes the liver fails to separate it from the blood, when it collects, and produces a condition to which Dr. Flint has given the name *cholesteremia*, a species of blood-poisoning having an analogy to *uremia*, or blood-poisoning from accumulation of urea consequent upon disease of the kidneys. In regard to the glycogenic function of the liver, it may be stated that nearly all physiologists admit that Bernard demonstrated it completely, although for a long time many apparently well-made experiments seemed to throw great doubt on the subject, some believing that the sugar found by Bernard was a product of post-mortem changes. It is a fact that it is difficult to find sugar in the liver which may not be said to be produced after death; consequently, demonstrative experiments are exceedingly difficult. On examining the blood which comes from the lungs in animals upon which vivisection has been performed it is found to contain no sugar. Other experiments have left no doubt of the fact that, to serve some purpose in the animal economy, sugar is destroyed in its passage through the lungs, the most generally received view being that it is converted into lactic acid, which unites with the alkalies in the blood to form lactates, which again are converted into carbonates. It is thought that among the causes of the disease diabetes is an abnormal performance of the function of respiration (q.v.). The glycogenic matter of the liver, in composition, reactions, and particularly in its readiness to be transformed into sugar, has considerable resemblance to starch, and is called by some authors amyloid matter. On account of its insolubility in water it may be extracted from the liver after all the sugar has been washed out.

LIVERMORE, ABIEL ABBOT, b. Wilton, N. H., in 1811; graduated at Harvard college in 1833; in 1857 removed to Yonkers and became editor of the *Christian Enquirer*, a Unitarian paper in New York; since 1863 president of a theological school at Meadville, Penn. Besides contributions to magazines, Mr. Livermore is author of *A Commentary on the Four Gospels*; *A Commentary on the Acts of the Apostles*; *The Marriage Offering*, a prize essay on the Mexican war; and several other works.

LIVERMORE, GEORGE, 1809-65; b. Cambridge, Mass.; received his education at the public schools; after being carefully trained for a mercantile life he entered into business in Boston as a wool-commission merchant, and was very successful. From early life he devoted his leisure hours to historical and antiquarian researches, in regard to which he became a recognized authority. His collection of editions of the Bible in different languages is believed to have been the finest in America. He was honored by an election to the Massachusetts historical society, the American antiquarian society, the American academy of arts, and the Boston atheneum. He frequently wrote upon bibliographical and historical subjects for newspapers and reviews, his contributions being invariably marked by a clear and vigorous style, and showing the results of extensive and accurate research. Among these contributions was a series of papers on the *New England Primer*, written for the *Cambridge Chronicle*, and an article in the *North American Review* on *Public Libraries*; but the most important of all his essays was *An Historical Research respecting the Opinions of the Founders of the Republic on Negroes as Slaves, as Citizens, and as Soldiers*, read before the Massachusetts historical society, Aug.

14, 1862, and published not only in the *Proceedings* of that society, but in a separate volume of 215 pages. During the war of the rebellion Mr. Livermore was a firm and generous supporter of the government, sparing neither time, strength, nor money in efforts to uphold the union. Died in Cambridge.

LIVERMORE, MARY ASHTON; b. Boston, 1821; daughter of Timothy Rice; educated in the Baptist seminary for girls at Charlestown, Mass.; married D. P. Livermore, a Universalist clergyman, and assisted him for some time in editing a Universalist paper in Chicago; distinguished herself during the war of the rebellion by her labors for the soldiers, under the direction of the sanitary commission; of late years has stood in the front rank of popular lecturers upon moral and social questions, and taken a very prominent part in the total-abstinence cause, and in the movement to secure suffrage for woman. She was for several years one of the associate editors of the *Boston Woman's Journal*.

LIVERPOOL, a t. in Nova Scotia, on the river Mersey, 70 m. s.w. from Halifax; pop. 3,102. It is a port of entry, has a fine harbor with light-house and revolving light, and is an active commercial and manufacturing center, making castings, machines, boots and shoes, and edge-tools, besides being engaged in ship-building. The inhabitants are also largely employed in lumbering and fishing; and considerable quantities of the product of these industries are exported to Europe and the West Indies.

LIVERPOOL, CHARLES JENKINSON, first earl of, 1727-1808; b. Oxfordshire, Eng.; educated at the charter-house school, London, and the university of Oxford. In early life he published *Verses on the Death of Frederick, Prince of Wales*; a *Dissertation on the Establishment of a National and Constitutional Force in England Independently of a Standing Army*; and a *Discourse on the Conduct of Government respecting Neutral Nations*. In 1761 he became one of the under-secretaries of state, and the same year was elected to parliament; in 1763 was appointed joint secretary of the treasury; in 1766, made lord of the admiralty by the Grafton administration; in 1772 appointed one of the vice-treasurers of Ireland; in 1776, minister of the mint; was secretary of war, 1778-82; in 1783 was appointed by Pitt a member of the board of trade. In 1785 he published a *Collection of all the Treaties of Peace, Alliance, and Commerce between Great Britain and other Powers, from the Treaty of Munster in 1648 to the Treaties signed at Paris in 1783*. In 1786 he was made chancellor of the duchy of Lancaster, created baron Hawkesbury, and appointed president of the board of trade; in 1796 was made earl of Liverpool. After this he withdrew mostly from public life.

LIVERPOOL, ROBERT BANKES JENKINSON, second earl of, 1770-1828; educated at the charter-house school and Christ-church college, Oxford; traveled on the continent, and was in Paris at the breaking out of the French revolution and the destruction of the bastille. Returning to England he was elected to parliament in 1790, but did not take his seat till the following year as he had not yet attained his majority. In 1792 he opposed Mr. Wilberforce's motion for the abolition of the slave trade. In 1793 he was appointed one of the commissioners of the India board of trade. In 1796, his father being created earl of Liverpool, he took his title of lord Hawkesbury, and was made commissioner of Indian affairs. On the retirement of Mr. Pitt in 1801 and the appointment of the Addington ministry, he was appointed secretary of state for the foreign department, and negotiated the treaty of Amiens. On the return of Pitt to power, Liverpool was home secretary 1805-7, and, on the death of Pitt, was offered the premiership, but declined. In 1808, on the death of his father, he became earl of Liverpool. Upon the dissolution of the Fox and Grenville administration in 1807 he again refused the premiership, but accepted the home department under Percival, on whose assassination in 1812 Liverpool became prime minister, with the title also of the first lord of the treasury. His administration extended from 1812 to 1827. His opposition to parliamentary reform, to Roman Catholic emancipation, to the abolition of the slave trade, and the emancipation of the slaves in the West Indies, his severe measures to repress internal disturbances, and his introduction of the bill of pains and penalties against queen Caroline, rendered him very unpopular, especially in Scotland. He was attacked with paralysis, and during the last three months of his life was helpless and imbecile.

LIVERWORTS. See HEPATICÆ, *ante*.

LIVERY COMPANIES, or GUILDS. See GUILDS; LIVERY; *ante*.

LIVERY OF SEISIN. See FEOFFMENT, *ante*.

LIVIA DRUSILLA, B.C. 56-A.D. 29; married early to Tiberius Claudius Nero, by whom she had two sons—Tiberius and Drusus. While pregnant with the latter she met Augustus, whom she so fascinated by her beauty that he compelled her husband to surrender her to him, at the same time divorcing his own wife, Scribonia. The married life of Augustus and Livia is said to have been in most respects happy; but it was marred at the close by the suspicions of the husband that the wife, in spite of her apparent devotion to his person and interests, had plotted the overthrow of the natural heirs of his throne. One by one the members of the large and brilliant family of Augustus had been ruined, and the aged emperor found himself alone in the palace with Livia and her son Tiberius, whom he was constrained to adopt and make his heir. The Roman people execrated her, and her son Tiberius, after his ascent to the throne, showed her no favor

or respect. He even refused to visit her in her dying moments, or to take any part in the funeral rites. She survived Augustus 15 years, dying at Rome.

LIVINGSTON, a co. in n.e. Illinois; 1026 sq.m.; pop. '80, 38,453. Traversed by the Vermilion river, and by the Chicago and Alton; Toledo, Peoria, and Warsaw; and Illinois Central railroads. The soil is fertile, the surface generally level. Productions: Indian corn, wheat, oats, potatoes, and hay; other staples are wool and butter. There are a number of manufactories of carriages, metal goods, saddlery and harness, etc. Co. seat, Pontiac.

LIVINGSTON, a co. in w. Kentucky, having the Ohio river on the n. and the Tennessee on the s., and intersected by the Cumberland; 275 sq.m.; pop. '80, 9,165. The soil is fertile. Productions: wheat, Indian corn, oats, tobacco, and potatoes. There are a few flour and saw mills, but no other important manufactures. Co. seat, Smithland.

LIVINGSTON, a s.e. parish of Louisiana, having the Amite river on the s. and w., and the Tickfah intersecting it; 650 sq.m.; pop. '80, 5,258. The surface is level and the soil fertile, producing cotton, Indian corn, rice, sweet-potatoes, and sugar-cane. Co. seat, Springfield.

LIVINGSTON, a co. in s.e. Michigan, traversed by the Red Cedar, Huron, and Shiawassee rivers, and by the Detroit, Lansing, and Lake Michigan railroad; 576 sq.m.; pop. '80, 22,251. The soil is fertile, and produces heavily of wheat, Indian corn, oats, and potatoes; wool, butter, hay, and hops are also staple products. Co. seat, Howell.

LIVINGSTON, a co. in n.w. Missouri, traversed by the Grand river and crossed by the Hannibal and St. Joseph and a branch of the St. Louis, Kansas City, and Northern railroads; 510 sq.m.; pop. '80, 20,205. The productions are Indian corn, oats, wheat, tobacco, hay, potatoes, butter, and wool. There are a number of mills and manufactories of flour, lumber, metal wares, sash, doors, and blinds, etc. Co. seat, Chillicothe.

LIVINGSTON, a co. in w. New York, intersected by the Genesee river and canal, drained by Honeoye and Canaseraga creeks, and traversed by the N. Y. Central and Erie railroads, and branches of the latter; 650 sq.m.; pop. '80, 39,573. The surface is varied, being hilly in parts, and is generally well wooded. The fertile and beautiful Genesee valley lies in this county and is one of its chief features, the soil being highly productive. The principal agricultural products are Indian corn, wheat, barley, hay, and oats; butter and wool are also important staples. The Avon saline-sulphurous springs are in this country, and are much frequented by persons suffering from rheumatism and from cutaneous diseases, as to which the waters are believed to exercise a specific remedial influence. This county has valuable quarries of sandstone. Co. seat, Geneseo.

LIVINGSTON, BROCKHOLST, LL.D., 1757-1823; b. N. Y.; son of William; educated at Princeton, and in 1776 entered the army on gen. Schuyler's staff. He was afterward with Arnold, and was brevetted maj. and col. In 1779 he became secretary to John Jay. After the war he studied law, and in 1802 was appointed a judge of the N. Y. supreme court. For the last 17 years of his life he occupied the eminent position of judge of the U. S. supreme court, and died at Washington.

LIVINGSTON, HENRY BEEKMAN, 1750-1831; b. at Livingston manor, N. Y.; son of judge Robert R. Raising a military company in 1775, he joined Montgomery's expedition to Canada. For gallant conduct at the capture of Chambly, congress voted him a sword of honor. In 1776 he became aide-de-camp to gen. Schuyler, and later in the same year col. of the 4th battalion of New York volunteers, resigning in 1779. Bred to the law, he successively filled the posts of attorney-gen., judge, and chief-justice of the supreme court of New York. He was also president of the New York society of Cincinnati; and during the war of 1812 he received the appointment of brig.gen. Died at Rhinebeck.

LIVINGSTON, JOHN. See LIVINGSTON, ROBERT R., *ante*.

LIVINGSTON, JOHN HENRY, D.D., 1746-1825; b. N. Y.; graduated at Yale college in 1762; studied theology at Utrecht, Holland; ordained at Amsterdam in 1770; received the title of D.D. from Utrecht; returning to the United States, became pastor of the Dutch church in New York, and during the war preached in Albany, Kingston, and Poughkeepsie; appointed professor of divinity by the general synod of America in a seminary opened under his direction at Bedford, L. I., in 1795, which being united in 1807 with Queen's (now Rutgers') college, New Brunswick, he became its president and professor of theology. He spent the remainder of his life in New Brunswick.

LIVINGSTON, PHILIP, 1716-78; b. Albany, N. Y.; grandson of John Livingston, to whom grants of land on the Hudson river were made by George I. A graduate of Yale college in 1737, he became a successful merchant in New York, a member of its city council, and a member from the city to the colonial assembly of New York from 1758 to 1769. He was elected to the continental congress, and is best known as one of the signers of the declaration of independence. He was in service in that congress then in session at York, Penn., at the time of his death. He was distinguished, like all the family, for resolute patriotism in aiding the cause of the colonies in their struggle for independence.

LIVINGSTON, WILLIAM, LL.D., 1723-90; b. Albany; brother of Philip (q.v.); graduated at Yale, 1741; governor of New Jersey, 1776-90. He was elected to the continental congress of 1774, was a delegate to the constitutional convention of 1787, and the author of a number of legal and political treatises. His life was one of patriotic devotion as jurist, legislator, and magistrate.

LIVINGSTONE, DAVID, LL.D. (*ante*). When left by Mr. Stanley at Unyanyembe in Mar., 1872, it was his intention to remain in Africa only about a year longer, and then to return to England for permanent residence. In the following Aug., having received men and supplies from Zanzibar, he led an expedition toward the e. side of lake Bangweolo and the supposed sources of the streams which form the Lualaba. From this time no news of his explorations was received from his own hand, and accurate details of this last journey are entirely wanting. An expedition, under the auspices of the royal geographical society, and commanded by lieut. Cameron, was sent to the relief of the explorer early in 1873. Leaving Zanzibar on Mar. 18, this relief-party began its quest. Having reached Unyanyembe in Aug., lieut. Cameron first heard of Livingstone's death. On Oct. 16 the intelligence was confirmed by the arrival there of a body of natives bearing the remains of the explorer, and bringing a letter from his negro servant, Wainwright. It appeared that the explorer, after enduring great hardships, had been attacked with dysentery, from which he died after a fortnight's illness. The party in charge of his remains encountered great difficulties and endured much suffering, but by the aid of lieut. Cameron they succeeded in reaching the coast. *The Last Journals of David Livingstone, including his Wanderings and Discoveries in Eastern Africa from 1865 to within a few days of his Death*, in 2 vols., edited by the Rev. Horace Waller, appeared in London in 1874; and *The Personal Life of David Livingstone, LL.D., D.C.L.; chiefly from his Unpublished Journals and Correspondence in the Possession of his Family*; by William Garden Blaikie, D.D., LL.D., was published in London in 1879. Both these works have been republished in New York. Dr. Livingstone was the recipient of honors from most of the geographical societies of the world; the academy of sciences in Paris elected him a corresponding member, and in 1871 the British government granted to his family a pension of £300. See AFRICA.

LIVINGSTONE RIVER. See CONGO, *ante*.

LIVY. See LIVIUS, *ante*.

LIZARD'S TAIL, the *saururus cernuus* (Lin.), of the natural order *sauraceæ*, a perennial plant growing in marshes and along the edges of ponds and slow streams in New York and westward and northward. Its stem is about 2 ft. high and rather weak; leaves alternate, petiolate, heart-shaped, entire, pointed, convergingly ribbed, slightly hairy, and pale green underneath. The flowers are in a slender, crowded, terminal, spike-like, gracefully curved raceme, about 4 in. long, having no calyx or corolla, the pistils, 6 or 7 in number, standing in the axis of a bract. Fruit rather fleshy, wrinkled, and composed of three to four pistils united at the base. The entire plant has an aromatic but rather unpleasant odor and a somewhat acrid taste. The root has been used for making poultices for abscesses and other painful swellings.

LLA'NO, a w. central co. in Texas; bounded by the Colorado, and intersected by the Llano and its affluents: 900 sq.m.; pop. '70, 1379. It is arid and stony, the inhabitants being devoted chiefly to stock-raising. The minerals abound, including gold, lead, iron, silver, and antimony. Salt and building-stone also are found. Co. seat, Llano.

LLA'NO ESTACA'DO, a desolate plateau of n.w. Texas and s.e. New Mexico, having an area of more than 40,000 sq.m., and an elevation of from 3,200 to 4,700 ft., with a general slope northward. It has but a scanty supply of water, and is covered with a sparse coating of grass in the wet season. Its scanty shrubs have large roots, which are used for fuel. Attempts made by gen. Pope in 1852 to obtain water by means of artesian wells met with little success.

LLAN'QUIHUE, a district of the department of Valdivia in southern Chili, between the river Buena on the north and the gulf of Ancud; 8,350 sq.m.; pop. about 43,000. It is mostly a fertile plain drained by the river Maullin, and largely peopled by Germans engaged in agriculture and grazing. The climate resembles that of Ireland, though the winters are less severe. It is the favorite part of Chili with emigrants from Europe, because more nearly resembling the northern coast of Europe in soil, production, and climate than other portions of Chili. Three volcanoes are among the Andes upon its eastern side. Port Montt, on the gulf of Ancud, is the principal town.

LLEWELLYN AP GRIFFITH, Prince of Wales, d. 1282. He succeeded David, 1246; revolted from his allegiance to the English in 1256, but made peace with Henry III. in 1268. Edward I. summoned him to attend parliament at Westminster both in 1274 and 1276, but he refused to appear. His wife, Eleanor de Montfort, was captured by the English in the channel in 1275, and his offers of a ransom for her were declined. The English invaded his territory and were successfully repelled; but in 1277 he surrendered his domains and was taken to Westminster. He subsequently returned to Wales, and, after being reconciled to his brother David, renewed the war with the English. He was surprised and killed by Mortimer in 1282.

LLOYD, THOMAS, 1649-94; b. at Dolobran, north Wales; educated at Oxford, but was converted to Quakerism, and, as a preacher of that sect, suffered much persecution; in 1684 accompanied William Penn to America, and was acting-governor and president of the council of Pennsylvania, 1684-86, and deputy-governor, 1691-93.

LLOYD, WILLIAM, D.D., 1627-1717; bishop of Worcester; b. Tilehurst, Berkshire; educated at Oriel college, Oxford; became fellow of Jesus college in 1646; ordained deacon in 1648; was tutor in a gentleman's family; rector of Bradwell in 1654; ordained priest in 1665, and made chaplain to Charles II.; received the title of doctor of divinity in 1667. Passing through several of the lower grades of church preferment he was made dean of Bangor in 1672, bishop of Exeter in 1676, and of St. Asaph in 1680. He took an active part in the troubles between the Romanists and Protestants in 1678. In 1688 he, with six other bishops, presented a protest to the king against the publication of his declaration of indulgence to Romanists and dissenters, and was with the others soon after imprisoned in the Tower. When tried they were acquitted. He was a warm supporter of the revolution, and was appointed almoner to William and Mary soon after their arrival in England. In 1692 he was transferred to the see of Coventry, and promoted in 1699 to the bishopric of Worcester. He furnished valuable materials to bishop Burnet's *History of His Own Times*, and besides many pamphlets on the Roman Catholic controversy, a few tracts on ecclesiastical subjects and several sermons, published *A Chronological Account of the Life of Pythagoras and of his famous Contemporaries*; *A Dissertation on Daniel's Seventy Weeks*; and *A System of Chronology*.

LOAN, in law (LOAN OF MONEY, *ante*), signifies either the delivery of money or any personal chattel by one person to another for which an equivalent return is to be made; or the bailment of a personal chattel to be returned in kind. In the case of the loan first mentioned, if the thing loaned be other than money, and its equivalent be not returned to the lender, he may recover its value with interest, if so specified, and costs, in a suit at law. But the specific article itself cannot be recovered at law, since the award of damages offers the lender, as a rule, a sufficient remedy. Yet equity will sometimes enforce specific performance of such a contract. But equity will not enforce, for instance, a contract for the delivery of a stock of which shares are easily procurable. The most ordinary contract of loan for which an equivalent is to be returned is a loan for money. This loan makes the parties to it debtor and creditor, instead of bailor and bailee. If there have been no express contract of loan, the law will imply one, with interest to be computed from the time the loan was made. The second class of loans belongs to the class of gratuitous bailments, the delivery of an article to the bailee, for his use, without compensation, and on condition of its return to the bailor. As this kind of bailment is entirely to the advantage of the bailee, he is bound to use extraordinary care, and is responsible for slight negligence, in the use of the bailment. He is not responsible for the natural deterioration by ordinary wear and tear of the article delivered, but with that exception must return the article to the bailor in as good condition as when it was received. The diligence to which the bailee is held in the care of the property depends upon its character and value, and the circumstances to which it is exposed. If the bailee refuse to deliver the property when the bailment has expired, after demand made, he may be sued in trover or replevin.

LOAN ASSOCIATION, BUILDING. See CO-OPERATION

LOANDA, ST. PAUL DE. See SAINT PAUL DE LOANDA, *ante*.

LOBAU, an island about 5 m. below Vienna, in the Danube; is noted for its connection with the battle of Aspern, between Napoleon I. and the Austrians under archduke Charles, May 21-2, 1809. Napoleon connected it by bridges with both banks, and crossed to the left bank on the 21st. On the night of the 22d, the defeated French regained the island and held it until July 4, when the river was again crossed and the battle of Wagram won on July 6. The title count Lobau was bestowed on gen. Mouton for conduct in the first attempt.

LOBAU, GEORGES MOUTON, Comte de, 1770-1838; b. France. A favorite and impetuous soldier in the campaigns of Napoleon, and by him made count of Lobau, in compliment for his valuable service in the Austrian campaign of 1809. He was taken by the English at Waterloo; returned to France in 1818; and was in obscurity until the revolution of 1830, when on the resignation of Lafayette he was made commanding general of the national guard of Paris. He distinguished himself at this time by suppressing a series of gatherings on the streets of Paris intended to organize a revolution in favor of the Bonaparte dynasty, by deluging the mob with water from fire-engines. The success of the experiment was the theme of innumerable caricatures.

LOBEIRA, or LOVEIRA, VASCO DE, a Portuguese writer of the 14th c.; d. 1404. Educated to the profession of arms, he was eminent only as the author or supposed author of a romance that has survived the centuries, and which appeared under the title of *Los quatro libros del Cavallero Amadis de Gaula*. It is known in the French translation as *L'Amadis de Gaul*.

LOBEL, or DE L'OBEL, MATTHIAS, 1538-1616; b. Lille, France; educated as a physician. He traveled through Europe, and was at one time physician to William of Orange; afterwards given a position as botanist in England under James I. He was a

close student of vegetable physiology, making new classifications by means of evident analogies of growth. The class of plants called *Lobelia* was named in compliment to him. He was author of *Stirpium Adversaria Nova*, London, 1570; *Plantarum seu Stirpium Historia*, Antwerp, 1576; and *Icones Stirpium*, Antwerp, 1581.

LOBLOLLY BAY. See GORDONIA, *ante*.

LOBO, JERONIMO, 1595-1678; b. Lisbon; joined the order of Jesuits in 1609; was made in 1621 professor in the Jesuits' college at Coimbra, but ordered to resign and repair as a missionary to India, embarked in 1622, and arrived in Goa the same year. In 1624 he left India and went to Abyssinia to Christianize that country, whose ruler had been converted to the Roman Catholic faith by father Paez in 1603. Disembarking on the coast of Mombas and vainly attempting to enter Abyssinia by land, he returned, and the next year, renewing the attempt, he landed on the coast of the Red sea with Mendez, the patriarch of Ethiopia, and eight missionaries, and reached Fremona, where was the missionary settlement. Here he remained for several years as superior of the missions in the state of Tigré, and was very successful. The death of the emperor Segued leaving the Roman Catholics without a protector, Lobo and all the Portuguese, numbering 400, with the patriarch, bishop, and 18 Jesuits, were expelled by his successor from the country. All fell into the hands of the Turks at Massowah, and Lobo was sent to India to procure a ransom for his imprisoned associates. He accomplished his object, but was unsuccessful in his endeavor to induce the Portuguese viceroy to send an army against Abyssinia. He then embarked for Portugal, was shipwrecked on the coast of Natal and captured by pirates. Reaching Lisbon he was sent to Madrid, as Portugal was then under the king of Spain, and endeavored to enlist the government in his scheme to convert Abyssinia to the Roman church by force. But neither at Lisbon, Madrid, nor Paris did his plan meet with favor. He then set out for Rome to lay his favorite idea before the pope, but here also he received no encouragement. He returned to India in 1640, and became rector and afterwards provincial of the Jesuits at Goa. Returning to Lisbon in 1656 he engaged in literary pursuits, and in 1659 published the narrative of his journey to Abyssinia, entitled *Historia de Ethiopia*, which was translated into French by the abbé Legrand, who added a continuation of the Roman Catholic missions in Abyssinia after Lobo's departure, and an account of the expedition of Poncet, a French surgeon from Egypt. This is followed by some dissertations on the history, religion, government, etc., of Abyssinia. The whole was translated into English by Dr. Johnson in 1735. Lobo was remarkable for enterprise and perseverance.

LOBSTER (*ante*). A mere inspection will show that a lobster is composed of two principal parts. These are commonly called the head and the tail. That which is called the head is really the head and the thorax combined, and is technically called the cephalothorax; while the part called the tail is the abdomen. Like all annulosa (articulata), the lobster is composed of a number of annular segments, or parts representing such, with members—legs, jaws, claws, feelers, etc.—attached to them, the whole being inclosed in a chitinous shell. See CRITIN, *ante*. These segments may be separated one by one, with the members attached to them, and examined. Each segment is composed of a convex upper plate called the tergum, and closed beneath by a flatter plate called the sternum, while the side of the segment is called the pleuron. These segments are again subdivided into parts which are amalgamated, but it is sufficient for the purposes of this article to give only a general description. There are 21 segments in the whole body, 7 in the head, 7 in the thorax, and 7 in the abdomen. The cephalothorax, or the part called the head, is covered with a shield or carapace, sometimes called the cephalic buckler, composed of an enormous development of tergal or dorsal pieces. The first segment of the head is provided with long, movable eye-stalks or peduncles, bearing upon their ends the compound eyes. The next six segments of the head, from before backwards, are furnished with: first, the antennules or smaller antennæ, each composed of a basilar piece called a protopodite, and two somewhat elongated feelers or antennæ; next, the larger antennæ, each composed of a protopodite, and a single, greatly elongated feeler; next, the biting jaws or mandibles, between which is the aperture of the mouth, bounded behind by a forked process called the labium, and in front by a broad plate called the labrum or upper lip. The next two segments after this are provided with appendages called, respectively, the first and second pairs of maxillæ, each situated upon a protopodite, with terminal joints, which in the first pair are rudimentary, but in the second are provided with spoon-shaped joints, called scaphognathites, whose office is to cause a current of water to pass through the gill-chamber by constantly bailing water out of it. The next and last segment of the head (according to Huxley this belongs to the thorax) bears one of the three pairs of modified limbs, called maxillipedes, or foot-jaws. These are legs with the ordinary structure of a protopodite, and three other joints added, called exopodite, endopodite, and epipodite. These limbs are modified so as to aid the purposes of mastication. This description applies to the next two pairs of segments, and which belong to the thorax, according to the usual division. The third pair of appendages of the thorax (the fourth according to Huxley) are the great claws, or chelæ. The next two pairs of thoracic limbs are also provided with nippers or chelæ, but they are much smaller. The last two pairs are similar, except that they are terminated by simple, pointed joints, and not chelæ. These last two pairs, however, differ, in

that the next last pair has attached to its protopodite a process which serves to keep the gills apart. Of the segments of the abdomen, seven in number, five—all except the first and last—are provided with appendages called swimmerets. Each swimmeret consists of a basal joint and two diverging joints. The basal joint is the protopodite, the outer of the diverging joints the exopodite, and the inner one the endopodite. In next to the last segment (the last one which has appendages), the swimmerets are greatly expanded, so as to form powerful paddles. The last segment of the abdomen is called the telson; it has no appendages, and for this reason some authorities do not regard it as a segment, but as an azygos appendage, or, in other words, an appendage without a fellow. The first segment of the abdomen will be seen to be considerably modified from those bearing swimmerets.—An esophagus leads from the mouth into a globular-shaped stomach, containing a calcareous apparatus for grinding food. This kind of mill is called the *lady in the lobster*. The intestine passes without convolutions in a nearly straight course to the anal aperture, which is situated on the under-side just in front of the telson. The lobster has a well-developed liver, consisting of two lobes, which enter the intestine by separate ducts. The heart is a muscular sack situated in the back just beneath the carapace, and opens by valvular apertures into a surrounding venous sinus, called (improperly) the pericardium. The gills are pyramidal, lance-shaped bodies, situated immediately beneath the heart and attached to the bases of the legs. Each consists of a central stem supporting numerous laminae, and they are unprovided with cilia. Water is propelled through them by the movements of the legs and by the spoon-shaped joint of the second pair of maxillae above-mentioned, which is constantly in motion, bailing out water in front of the branchial chamber, thus allowing the entrance of fresh water through the posterior aperture. The nervous system is situated along the ventral surface of the body, and consists of a series of ganglia united by commissural cords. Two compound eyes, two pairs of antennae or feelers, and two ears in the form of sacks comprise the special organs of sense. The arrangement of the muscular system is in general like that of all articulates.

LOB-WORM, a species of dorsibranchiate annelid belonging to the genus *arenicola*, order *errantia*. It has the specific name *a piscatorium* from being used by fishermen for bait. It lives in deep canals, which it hollows out of the sand on the sea-shore, eating its way and passing the sand through the alimentary canal to extract whatever nutriment it may contain. It has a large head without eyes or jaws, and a short proboscis, and 13 pairs of gills, placed on each side of the middle of the body. See **INVERTEBRATE ANIMALS**.

LOCAL PREACHERS. An order of lay preachers in the Methodist churches, their name distinguishing them from the itinerant or traveling preachers. They are not, as the regular preachers are, members of annual conferences, nor are they, like them, appointed by the bishops or stationing committees. They are licensed, and are subjected to the direction of the pastor or presiding elder in whose charge they reside. Sometimes a local preacher, by special arrangement and by the authority of the presiding elder, is appointed a pastor for a specified period. For appointment as a local preacher a person must be recommended by the leader's meeting of the church to which he belongs, and must be elected by a quarterly conference before which he has been examined as to doctrines and discipline. As proof of his appointment he receives a license signed by the president of the conference, which is for one year only, and must be renewed every year afterwards. For ordination, a local preacher must have held a local preacher's license for four consecutive years, must have been examined in the quarterly conference on doctrines and discipline, must have received a "testimonial" from the quarterly conference signed by the president and secretary, and must pass an examination as to character and attainments before the annual conference.

The office of local preacher was instituted by Wesley. These preachers are laymen who support themselves by their secular business during the week, and preach on the Lord's day, mostly in poor or new churches, receiving, with rare exceptions, no fee or reward for their services. Their number in the United States in all the Methodist bodies is about 22,000. A national local preachers' association has been formed, which meets annually for counsel and the discussion of questions pertaining to their work. Branch associations have been formed in various parts of the United States. In England a *Local Preachers' Magazine* is published.

LOCARNO. See **LAGO MAGGIORE**.

LOCHRANE, OSBORNE A., b. Middletown, Armagh, Ireland, 1829. Before completing his education he had indulged in such violent denunciations of the British government that his father, in order to place him beyond the reach of prosecution, sent him to New York, where he arrived Dec. 21, 1846. He soon afterwards went to Georgia, where his fluency as a public speaker attracted the attention of an eminent citizen, by whose advice he studied law. Having been admitted to the bar in 1849 he opened an office in Savannah, but soon removed to Macon, where, from 1861 to 1865, he was judge of the circuit court. In the latter year he removed to Atlanta, and in 1870 was made judge of that circuit. In 1871 he was appointed chief-justice of the state supreme court, but resigned at the end of that year to resume practice at the bar.

LOCK (ante). An important class of locks are what are called permutation and dial locks, and are used upon burglar-proof safes. One of the principal devices in them is the employment of a number of wheels, placed near together, on an axis on which they move independently. These wheels do not interfere with the motion of each other except when certain pins are brought in contact, the pins being movable at the will of the person adjusting the lock. In this way one having knowledge of the combination may arrange the wheels so that certain slots in their peripheries will not coincide, and cannot be made to coincide, by any one not in possession of the arrangement. The person having such knowledge may, however, readily place the slots into line and pass a key through them, by which means alone the bolt of the lock is moved. An ingeniously arranged dial is placed on the outside of the safe door, through which a bolt passes attached in the lock to a wheel. This fixed wheel can be turned one way or another, and, being provided with a pin, the first of the movable wheels may be turned so that its slot will correspond to any number on the dial. This first movable wheel, being also provided with a pin upon its disk, is made to turn the second wheel to a certain position, and so on to the last wheel, when, the slots being all brought into line, the key is introduced. There are a great many varieties of these locks, each possessing various advantages. As burglars often compel the person having the knowledge of the combination of a lock to reveal the secret, it is often the practice to employ for bank-vaults locks with a clock-work attachment by means of which the bolt is liberated at a certain hour, until which time, nobody, not even the person possessing a knowledge of the combination, can open the lock.

LOCK, MATTHEW, 1635-77; b. Exeter, Eng.; received instruction in the rudiments of music from Wake, organist of Exeter cathedral, and completed his studies under Edward Gibbons. When Charles II. made his entry into London after the restoration, Lock was employed to write the music for the occasion, and was afterwards appointed composer for the king. The first piece that bore his name was *A Little Consort of Three Parts*, for viols and violins. He was the first musician of England who composed music for the stage; and he wrote the instrumental music in the *Tempest* and *Macbeth*. In 1675 he composed the overture and airs to Shadwell's *Psyche*. He wrote several sacred pieces found in the *Harmonia Sacra*, and in Boyce's *Collection of Cathedral Music*, which show him a master of harmony; but his fame rests chiefly on his music in *Macbeth*, which his biographer says is "a lasting monument of the author's creative power and judgment." He wrote also some controversial musical treatises. A few years before his death he became a Roman Catholic.

LOCKE, DAVID ROSS, more widely known by his *nom de plume* of Petroleum V. Nasby; b. Vestal, Broome co., N. Y., 1833. He became a printer in the office of the *Cortland Democrat*, and subsequently publisher and editor of the *Plymouth Advertiser*, the *Mansfield Herald*, the *Bucyrus Journal*, the *Findlay Jeffersonian*, and the *Toledo Blade*, all in Ohio. In 1860 he began the publication of the Nasby letters in the *Findlay Jeffersonian*, and soon after continued them in the *Toledo Blade*. They were designed to throw ridicule on the flimsy logic then in vogue to bolster or shield the institution of slavery. The keenness and pungency of the satires were instantly recognized wherever read. They soon gained wide circulation, and became a powerful auxiliary to the administration of Lincoln in aiding to paralyze the efforts of northern sympathizers with the southern cause. In 1866, when president Johnson was seeking popular support for his policy by traveling in the west with his cabinet, Locke, under the same *nom de plume*, made the expression of "swinging round the circle" as ridiculous and notorious as possible, by grotesquely journalizing the daily doings of the cortege. As an editor Mr. Locke is remarkable for terse and vigorous thought and diction; and whether humorous or serious is always a trenchant writer. It is his misfortune, however, to have courted popularity among men of low tastes, and the tendency of his writings has been of late to a lower grade of subjects. In 1875 he published *The Morals of Abou Ben Adhem*; and in 1879 a coarse comic drama entitled the *Widow Bedott*, simply an adaptation of the comic story of that name written by Mr. Frances M. Whiteche in 1854, and of no credit to Mr. Locke in conception or adaptation, though it has proved popular with a certain grade of theater-goers. Mr. Locke is still publisher and editor of the *Toledo Blade*.

LOCK HAVEN, a city in Pennsylvania, capital of Clinton co., on the s. bank of the w. branch of the Susquehanna river, at the mouth of Bald Eagle creek, and on the w. branch canal and the Philadelphia and Erie and the Bald Eagle division of the Pennsylvania railroad; 70 m. n.n.w. of Harrisburg; pop. '70, 6,986. It is the center of an extensive lumber trade, contains 13 churches, 2 national banks, 3 weekly newspapers, and graded public schools.

LOCKPORT (ante) was incorporated as a city in 1865. The railroad crosses the canal by a bridge 500 ft. long and 60 ft. above the water; the surplus water of the Erie canal, after being raised 60 ft. by 5 double combined locks, is distributed through a hydraulic canal three-fourths of a mile long to the various manufactories of the city. This immense water-power is the chief source of the city's prosperity, affording as it does almost unexampled facilities for manufactures of every kind.

LOCKROY, JOSEPH PHILIPPE, a French dramatist, b. Turin, 1803. His true name is SIMON. He excelled as an actor of the *Comédie Française*, but left the stage and

devoted himself to writing for it with Scribe, Anicet-Bourgeois, and others. His most popular plays are *Passé Minuit*; *Les Trois Épiciers*; *Le Chevalier du Guet*; and *Charlot et le Maître d'École*. He wrote in connection with Alexander Dumas a drama entitled *Conscience*. He wrote also the librettos for *La Reine Topaze*, and other operas.

LOCKYER, JOSEPH NORMAN, b. Eng., 1836; received his education at private schools in England and on the continent. In 1857 he was appointed to a position in the war-office, and in 1865 became editor of *Army Regulations*. He was appointed in 1870 secretary of the royal commission on scientific instruction and the advancement of science, from which he was afterwards transferred to the science and art department of the same organization. He is best known for his services in astronomy and physics: he discovered a method of observing sun phenomena, in commemoration of which the French government caused a medal to be struck in 1872. He has held the position of chief of several government expeditions for astronomical observation. In 1874 he received the Rumford medal from the royal society. He has published *Contributions to Solar Physics*, 1873; *The Spectroscope and its Applications*, 1873; *Star Gazing, Past and Present*, 1878; and other works.

LOCOMOTIVE, COMPRESSED AIR. The attention of engineers has for a few years past been directed to the construction of locomotives using compressed air instead of steam. Compressed air for driving stationary engines for rock-drilling in tunnels has been in use for some time, but in these the compressed air was directly furnished by a pump driven either by steam or water-power, the latter being preferred where convenient. At the present time the application of compressed air to locomotives is thought practical only for short lines and where steam is objectionable, but it is possible that in the future long lines of railway may be furnished with pneumatic pipes, or with pumping-stations, and receive their motor power in this manner. Compressed air street-motors have been used in Glasgow, Paris and New York; and two Scottish engineers, Robert Hardie and John James, have been and still are engaged in this country upon the problem. It is said that the pneumatic engines devised by them, which have been running at intervals on the Harlem portion of the Second avenue surface road, between 96th and 130th streets, have proved so satisfactory that no doubts are entertained by the pneumatic tramway company that before many years this mode of propelling passenger cars on comparatively short distances will be generally adopted. It is believed that the properties of atmospheric air have not been utilized to anything near their natural limits.

The first problem in compressed-air locomotion is to compress and store air in a reservoir of suitable dimensions to be carried on a street-motor or car. In order that such car may be driven several miles and make numerous stops, a considerable amount of energy must be stored at the commencement of the trip, unless pneumatic pipes be laid along the line. In any case a certain distance has to be run before the compressed air reservoir can be replenished. The reservoir of compressed air may, therefore, be compared to the fuel of a steam-engine, although the air derives its energy from the fuel which supplies the compressing steam-engine. This comparison may show the importance of furnishing the motor with a conveniently disposed air-chamber filled with highly compressed air, and also of maintaining an equable pressure upon the driving pistons, while the compressed air is constantly diminishing in tension by its escape in performing its work. It is said by engineers who have given practical attention to the subject that it will be desirable to use an initial pressure of about 500 lbs. to the sq. in., which is the equivalent of about 33 atmospheres. A pressure of 300 lbs. to the sq. in., or 20 atmospheres, has been found practicable, and most motors have hitherto been run with this pressure. Of course, the compression of the air converts a vast amount of latent into sensible heat. See *HEAT, ante*; *Latent Heat*. This energy is lost because there is no way to prevent the sensible heat from being conducted away or dispersed. If the air be introduced into the motor reservoirs in the heated and dry condition which it attains in the pump cylinder, it would not be fit to perform its duty in the driving cylinders of the motor. It would not, however, retain its expanded volume in the motor reservoir without being kept heated. Before entering these reservoirs it must be cooled, and it is not improbable that the heat with which it parts on cooling may be utilized in producing a part of the steam for the pumping engine. The methods of cooling are various; those employed in compressing-engines for furnishing air directly to stationary air-engines have the pump cylinder surrounded by a cold-water jacket, or have a circulation of cold water in the cylinder head, or have sprays of cold water forced into the pump cylinder. The air for a store cylinder from which motors take their compressed air may, however, be more conveniently cooled by passing it through a tank of cold water.

In using a pneumatic motor there are three different machines all receiving their energy from the boiler steam. 1. The engine which drives the compressing machine; 2. The compressing machine itself; and 3. The engine which drives the locomotive. It is estimated that the loss of power in all these amounts to about one-half of that contained in the steam boiler of the pumping engine. One of the earliest compressed air locomotives was devised by M. Ribourt, the engineer at St. Gothard (see *TUNNEL*), for hauling debris from the tunnel. M. Ribourt's method for equalizing the pressure upon the driving pistons was the employment of a sliding cylinder inside of and concentric

with the cylinder in which the driving piston moves. This inside cylinder is controlled by a spiral spring which is connected with the piston rod. Compressed air at the initial pressure enters the cylinder between the piston heads. Within this space it therefore has no effect, but it passes from this chamber through orifices into an outer jacket, and thence again on the further side of one of the piston heads, that one opposite the end to which the spring is applied. These orifices pass through both inside and outside cylinders, and their capacity depends upon the relative positions of the two cylinders. The adjustments of the different parts of the apparatus are so made that, when the air passes through the jacket to the outer surface of the piston head upon which it acts at its initial pressure the orifices in the cylinders do not exactly coincide, and their capacity is therefore diminished. As, however, the tension of the air diminishes, the spiral spring, acting against the pneumatic pressure, forces the inside cylinder farther back, at the same time increasing the capacity of the openings in the two cylinders by making them more nearly coincide. This increase of capacity of orifice is in the inverse ratio to the pressure, and the action is reciprocal and continuous. Considerable modifications have been made in motors running upon tramways in Glasgow, Paris, and New York. M. Mekarski has successfully propelled motors in France with compressed air at 450 lbs. per sq. in., or 30 atmospheres. The ordinary high-pressure locomotive engine is the form used, but the compressed air before reaching the cylinders is forced through a tank of hot water at about 220° F., by which means it becomes saturated with steam. An equalizing throttle-valve is placed on the top of the hot-water reservoir, for the purpose of regulating the pressure upon the pistons. Two of the locomotives were exhibited at the Paris exposition of 1878, one a car motor, the other a separate motor. The latter could draw a car containing 30 passengers from 10 to 11 m. on a level, and could ascend a grade of 5 to 100. Further improvements, it is said, have been introduced on motors which have been running on the Second avenue railroad in New York. One of the improvements is the passing of the compressed air through water heated to about 328°. It is claimed that the motors have worked successfully, and at a less cost than when horses are used for the same amount of work. Some engineers, however, do not accept these estimates, and it is declared that the experience at Glasgow, where both compressed air and steam motors have been used, indicates that the pneumatic motor requires more than four times the expenditure of steam to perform the same work that the steam motors do; and a leading French engineer says that at Paris it is estimated that the cost of motive power on street railways, calling horse-power 100, will be, for compressed air, 64, and for steam power, 20, making compressed air a little more than three times as expensive as steam. It must, however, be understood that but a short time has elapsed since the first trials were made, and yet that considerable progress has been made—perhaps greater than has ever attended the development of any similar invention. A pamphlet issued by the pneumatic tramway engine company of New York contains a letter from gen. Herman Haupt, its consulting engineer, in which he says "that although one-half the power of the stationary engine is lost in compressing air, yet the economy of fuel can be made so great that a given amount of power in compressed air is secured at one-half the cost of the direct application of steam to motors." The difference in specific heat of water and of air also is important as regards the advantage in economy of air. See *HEAT, ante*; *Specific Heat*. Gen. Haupt again says: "By a simple device of heating the air by passing it through a tank of water it is claimed as the result of constant practice in Paris, confirmed by recent experiments on the Second avenue railroad, that the capacity for work is doubled, or the gain 100 per cent, making the economy of power, as compared with the direct application of steam to street motors, measured as it should be by the coal consumed, four to one in favor of compressed air." Again: "The motor cylinders are so arranged that in descending steep grades they act as air pumps, and at the same time as brakes, by which means it is found, as stated by the company's engineer, Mr. Hardie, that in running down grade on the Second avenue railroad, pumping back against a pressure of 200 lbs. in the receiver, the pressure was increased 7 lbs. in a distance of four-tenths of a mile."

LOCOMOTIVE ENGINE. See STEAM-CARRIAGE; STEAM-ENGINE, *ante*.

LO'CRI, or LOCRI EPIZEPHY'RII, a t. of the Greek Locrians in Italy, on the s.e. coast of the Bruttian peninsula. The name seems to indicate that it was a colony of a Locrian settlement at cape Zephyrium (capo di Bruzzano), on the Ionian sea. The date of its foundation is uncertain, some putting it B.C. 710, and others 683. The Locri Epizephyrii are said to have been the first Greek people who had a written code of laws. This code, drawn up by Zaleucus about B.C. 634, was so excellent that in the time of Demosthenes Locri is cited as an example of good government; and to the institutions of Zaleucus this city owed its prosperity and fame. In the battle at the river Sagras 10,000 Locrians defeated with great carnage 130,000 Crotoniats. After 205 B.C. Locri declined in importance, and after the 6th c. no author makes mention of it. Its site has been found about 5 m. from the modern Gerace, containing, among other remains, the fragments of a Doric edifice supposed to have been the temple of Proserpine. Several distinguished poets and philosophers were natives of Locri.

LO'CRIS—LOCRIANS, an ancient Grecian race, in later times merged with the Achæans, deriving their name from Locrus, a king of the Leleges, from whom they

descended. In historic times two distinct tribes were known. The eastern Locrians, divided into the Opuntii and Epienemidii, dwelt opposite the island of Eubœa on the e. coast of Greece, and were said by Homer to be followers of Ajax son of Oileus to Troy. The western Locrians were called Ozolæ, and lived on the Corinthian gulf, w. of Phocis. From the first tribe were probably descended: 2. LOCRI EPIZEPHYRII, who not far from 700 B.C. founded a city in Magna Græcia on cape Zephyrium, now capo di Bruzzano. The Locrians were engaged in many wars with neighboring tribes, were held in subjection by the younger Dionysius after his banishment from Syracuse, B.C. 356, and during the wars of Rome with Pyrrhus and Carthage the city was alternately occupied by the opposing parties. The first code of written laws ever adopted by any people is said to have been that of Zaleucus, a Locrian king. Locris is said to have been destroyed by the Saracens as late as A.D. 600. In the existing century explorers have discovered ruins near the modern town of Gerace, thought to be those of a celebrated Locrian temple to Proserpine.

LOCUST (*ante*) and GRASSHOPPER (*ante*) are here considered together because of the confusion in the popular mind in regard to them. Their similarity in form and habits is considerable, and by some of the best authorities they are placed in one division under the name of grasshoppers, including two families, the acrididæ and locustidæ, the acrididæ forming the family of locusts, while the locustidæ form the family of grasshoppers. There has long been a popular error in regard to the identity of the locust, the idea having been very widely spread that a species of hemipterous insect, the seventeen-year cicada, allied to the dog-day harvest-fly, is the true locust. As classified by the U. S. entomological commission, probably the best authority for the general reader, the section of orthoptera called *saltatoria* is divided into three families, acrididæ, locustidæ, and gryllidæ, the latter family including the crickets. The acrididæ and locustidæ form a subsection or group called grasshoppers, for the insects comprising both these families are really grasshoppers, and the locust is quite as much of a grasshopper as any of the members of the other family; indeed, he may be regarded as the grasshopper *par excellence*. The principal distinctions between the two families are given in the article LOCUST, *ante*. See also CRICKET; GRASSHOPPER; CICADA, *ante*. Both the old-world and new-world locusts belong to the family acrididæ, but are in many cases of different genera, which, however, are said to shade off into one another, so that it is difficult to tell in which group to place some of the members. Most of the old-world locusts belong to the genus *pachytylus*, the more devastating species being *P. migratorius*, but in south-western Europe the more common genus is *caloptenus*, the name of the Rocky-mountain genus; but the species is not the same. The locust of Algeria belongs to the genus *acrydium*, *A. peregrinum*. The old-world locusts are much larger than the Rocky-mountain locust, and probably a more formidable animal. More minute classifications are made, not needful here; as, for instance, the family acrididæ, containing as it does a very large number of species varying considerably in form and character, has been again divided into three subfamilies, *proscopina*, *acridina*, and *tettigina*, the acrididæ including the migratory locusts. The Alps form a dividing barrier or partition to the two different genera of European migratory locusts. There are many species of acrydium genera spread over the world, but as the most of them do not have the multiplying and migratory power of the few species which are among the world's historical scourges, they are not popularly known as locusts, but pass under the name of grasshopper: many of them may be seen in various localities, hopping along the fences, roadsides, mown meadows, and pastures, and can be distinguished by their much shorter antennæ and more robust bodies. Most of the facts in this article in regard to locusts are taken from the first annual "Report of the U. S. Entomological Commission for the year 1877, relating to the Rocky mountain locust." This valuable work is the record of investigations chiefly by profs. C. V. Riley, A. S. Packard, and Cyrus Thomas. According to Orosius, "in the year of the world 3,800 certain regions of n. Africa were visited by monstrous swarms; the wind blew them into the sea, and the bodies washed ashore 'stank more than the corpses of a hundred thousand men.'" According to St. Augustine, another locust plague, causing famine and contagious diseases, occurred in Numidia, resulting in the death of 800,000 men. Pliny states that locusts came over in great swarms from Africa to Italy in his time. Great invasions of locusts have occurred in Germany: one in 1333, lasting till 1336; another in 1475; others in 1527, 1543, 1636, 1686, 1693-96, 1712-15, 1719, 1727, 1731-34, 1746, 1750-52, 1754, 1759-61, 1803, 1825, 1830, 1856-59. In 1873-74 small numbers appeared in swarms about Genshagen, near Berlin; they laid their eggs, and in the middle of June, 1875, the larvæ appeared in millions, becoming fledged in July. Köppen has published an elaborate memoir on the migratory locust of southern Russia, and comes to the conclusion that *pachytylus migratorius* and *P. cinerascens* are only varieties of the same species, and that another genus, *ceipoda*, is the same also. The form which he met with as most abundant in southern Russia is the true *pachytylus migratorius*. He describes minutely the development of the insect, the eggs of which are deposited in little nests of 60 to 100 together, surrounded by a membranous envelope. The eggs are laid in the autumn and hatched in the following spring. Köppen says the larvæ molt four times, the fourth molt producing the winged insect. The eggs taken from the ground showed the eyes, antennæ, segments,

and legs of the larvæ distinctly. A little while before hatching, the larva might be seen moving within the egg. He notices the *caloptenus italicus*, the congener of the American *caloptenus spretus*, as occurring in southern Russia. Other locusts which are occasionally devastating are *pachytylus stridulus*, *ædipoda devastator*, *stauronotus vastator*, *S. cruciatus*, and *pezotettix alpina*.

The genus to which the principal species of locusts of the United States belong is *caloptenus*, and it comprises 29 species, as described by various authors, but it is thought that several of these upon further examination will be found mere varieties of closely allied species. Of these nearly all are local, and not greatly destructive; for instance, *C. floridans* has been found only in Florida; *C. griseus*, only in Ohio; *C. repletus* and *C. scriptus* only in the n.w. portion of Washington territory, and others in other regions. Only three species are so nearly allied as to require careful examination for their distinction from one another; viz., the Rocky-mountain locust, *caloptenus spretus*; the lesser locust, *caloptenus atlantis*, of the eastern states as well as western states and territories; and the red-legged locust, *caloptenus femur rubrum*. Some of the general characteristics of the genus *caloptenus* are as follows: head subglobular, front vertical or nearly so; vertex narrow between the eyes, being a little less than the eye itself; sides parallel, flat or slightly concave, and nearly perpendicular; dorsal surface nearly flat; the elytra and wings extend to or beyond the tip of the abdomen, the elytra being narrow, with one exception (*C. bivittatus*), and the wings transparent in all the American species, with sometimes a bluish tinge. Abdomen usually subcylindrical, having no distinct keel above; that of the male enlarged at the tip and curved upwards, the last segment being sometimes truncated, sometimes notched. Posterior thighs strong and much enlarged near the base; the external surface more or less convex, and in the female generally longer. Most of the American species have the upper portion of the inner face of the posterior thighs marked with three oblique dark bands, the one at the base less distinct; antennæ filiform and slender, much shorter than in the family *locustidae* or so-called true grasshopper. The following are approximate measurements of the insect taken from an extensive table made by prof. Riley. Female: whole length to tip of elytra, $1\frac{1}{4}$ to $1\frac{1}{2}$ in., the elytra projecting from 0.13 to 0.28 in. beyond the tip of the abdomen. Length of male to tip of elytra, $1\frac{1}{10}$ to $1\frac{1}{2}$ in.; projection of elytra beyond abdomen, 0.2 to 0.3 inch. The species most closely allied to *C. spretus* of Thomas is *C. atlantis* of Riley, which is at once distinguished from *C. femur rubrum* by the notched last joint of the abdomen of the male, and by greater relative length of wings, which extend nearly one-third their length beyond the tip of the abdomen in dried specimens, and also by the larger and more distinct spots on the wings. From both species it differs by its smaller size, and also by the more livid color of the dark, and paler yellow of the light, parts. Measurements of the male to tip of elytra, 0.84 to 0.93 to 0.95 to 0.98 to 1 inch. *C. femur rubrum* is larger than *C. atlantis*, but the elytra are shorter in proportion, sometimes in the female not reaching beyond the tip of the abdomen, the whole length to tip of elytra being from 1.04 to 1.22 inch. The *C. femur rubrum* is generally called the common red-legged locust, and *C. spretus* is known by the several names hopper, army grasshopper, red-legged locust, Mormon locust, western locust, hateful grasshopper, and Rocky-mountain locust, which latter is the most appropriate name. The history of the Rocky-mountain locust, the specially destructive species, is much like that of the old-world locust. It breeds over vast areas and often migrates in immense swarms for hundreds of miles beyond its usual habitat, but the American locust prefers rather cooler latitudes than the old-world insect, a large portion, nearly one-third, of its permanent breeding grounds lying in British America about the head-waters of the tributaries of lake Winnipeg. Not much can be said about the movements of the Rocky-mountain locust previous to 1864, and it is questionable by the commission whether it may not have increased in some regions since the settlement and improvement of the country, which has given them more subsistence. Neill's history of Minnesota mentions the invasion of that district of country by vast swarms of grasshoppers in 1818-19, which devastated the country and often covered the ground 3 or 4 in. deep, and in 1820 they ravaged the western counties of Missouri. In 1842 locusts again appeared in Minnesota and Wyoming, and in 1845 in Texas, and again in 1849. They have appeared in Utah from 1851 to 1877, except in 1873-74, and a portion of this territory forms one of the permanent breeding-grounds. From one year to another they have visited various portions of the territories and states. A notable locust year was 1866, when the insects swarmed over Kansas, Nebraska, the western counties of Missouri and n.e. Texas, and in Iowa, Minnesota, Colorado, and Utah. They often delayed the railroad-trains in these parts by lubricating the rails when crushed. In 1870 locusts were not plentiful, but in 1870-71 they began to increase, and in 1873 they again wrought serious ravages; but the most disastrous locust year which has been known in the country was 1874, vast destructive swarms invading settled portions of the Mississippi valley w. of the 94th meridian, Colorado, Nebraska, Kansas, Wyoming, Dakota, Minnesota, Iowa, Missouri, New Mexico, Indian territory, and Texas were overrun by swarms from the n.w., from Montana and British America. The loss in this region was estimated at \$50,000,000. In 1875 the young insects hatched in immense numbers over an area embraced by about 300 m. of latitude and 250 of longitude, embracing portions of Nebraska, Kansas, and Missouri, the two western tiers of counties of Missouri and the four tiers of counties in

Kansas w. of Missouri suffered the most, about 750,000 people becoming destitute or suffering. In Missouri alone prof. Riley estimates the loss to have been \$15,000,000. In Mar., 1877, prospects were bad, but there was an unusual rain-fall in April, May, and June, and much of the country along the Missouri river was flooded, and the weather was cool over Colorado, northern Utah, Montana, and British America. The young insects died in vast numbers when they hatched, and few of them lived to acquire wings. South of 40° of latitude, late in May and early in June, they flew toward the n.w. to Dakota and Montana, whence their progenitors came.

The permanent breeding-grounds of the Rocky-mountain locust were not defined until the U. S. entomological commission made their investigation. Vague ideas were entertained, and it was known that many of the swarms came from the n.w., but there was no definite information. It was ascertained that the area in which the locust breeds each year is about 300,000 miles. They do not cover this area in breeding, but may breed any year in any part of it. It is the permanent habitat, but the most favorite breeding-grounds within the area are the river-bottoms and sunny slopes of uplands, or the grassy regions among the mountains, rather than over the more elevated, dry, and bleak plains. In central Montana the breeding-grounds are in the valleys of the Yellowstone, the upper Missouri, Gallatin, Madison, and Jefferson rivers and the grassy plains along their tributaries. These levels lie below 6,000 ft., mostly between 3,000 to 5,000 feet. The permanent area principally lies e. of the main Rocky-mountain range, between meridians 102 and 114 w. of Greenwich and between lat. 40° and 50° north. Farther w., between lat. 42° and 45° and long. 114° and 118°, there is a strip of 60 m. wide by 200 long at the headwaters of the Snake river, a tributary of the Columbia, which is a permanent breeding-ground. A subpermanent region, in which the insects breed more or less continuously, extends to the e. of the permanent region from 200 to 400 m., between parallels 39° and 53° of latitude. A temporary region extends to the valley of the n. Mississippi, passing through the states of Minnesota, Iowa, Missouri, and the north-western counties of Arkansas, and through Texas to the gulf of Mexico, thence n.w., passing through New Mexico, Arizona, Nevada, thence n. through Oregon and Washington territories to the main Rocky-mountain range in lat. 49°.

The locust is the only truly migratory insect, although swarms of butterflies have been known to fly short distances in the Mississippi valley. The locusts of the old world have been known to fly into central Europe from their permanent breeding-grounds in central Asia. In North America they often extend their flights over a distance of 1000 to 2,000 m., or from Montana to Missouri, and even to Texas. The flight generally takes place during the day, commencing early in the forenoon and ending for that day at about five o'clock in the afternoon. The rate of travel varies from 3 to 20 m. an hour, depending on the wind. Sometimes those which commence to fly in Montana the middle of July may not reach Missouri till Aug. or the fore-part of September. The swarms are designated, according to their origin and direction, *invading swarms*, or those which come in vast numbers from their permanent breeding-grounds; *returning swarms*, or those which, having hatched in an invaded district, return, as by instinct, to the permanent breeding-grounds; and *local flights*, or those to-and-fro movements of insects hatched in an invaded district.

The height in which the migrating swarms move has been the subject of observation, and differs according to locality, vastness of numbers, and direction and height of air-currents. The signal-service officer at Bismarck observed a swarm moving above the cumulus clouds. One observer states that in 1868, when upon the snowy ranges e. of Middle park, and on Long's peak, there were daily flights of full-grown grasshoppers as far as the eye could reach from the loftiest summits. Another, from Parry's peak, in 1872, speaks of them as filling the air like snow-flakes, far above the summit, 13,333 feet. It has been observed that a sudden change of wind generally brings a flying swarm to the ground. When the wind returns to the direction in which they were going they will again rise and pursue their flight. Repeated observations have confirmed this statement. A fall of temperature always brings a swarm to the ground, and this is thought to be the chief reason of their alighting in the evening. Flights, however, have been known to take place at night, or to continue during the night when the weather is warm. The opinion has been formed by some that the locust has but little power of flight except when aided by the wind, while others think it capable of sustained flight even against a gentle wind. The truth lies between these extreme views. The migratory locust has considerable power of flight for so small an animal, but would make comparatively little progress, and not prove to be the devastator that he is except for the wind. It has been observed that locusts are most numerous, whether by immigration or otherwise, in warm, dry seasons. Cold and wet prevent hatching, and do great injury to the young that are hatched.

Destructive Power of Locusts.—Prof. Riley remarks: "No one who has not witnessed the ravaging power of locusts can fully conceive of or appreciate it. Muscular, gregarious, with powerful jaws and ample digestive and reproductive systems; strong of wing, and assisted by numerous air-sacs that buoy—and these traits conspire to make it the terrible engine of destruction which history shows it to have been under conditions favorable to its excessive multiplication. Insignificant individually, but mighty collectively, locusts fall upon a country like a plague or a blight. The harvest is at hand;

the day breaks with a smiling sun, and all the earth seems glad. Suddenly the sun's face is darkened and clouds obscure the sky: the day closes, and ravenous locust swarms have fallen upon the land. The morrow comes, the fertile land of promise and plenty has become a desolate waste, and the sun shines sadly through an atmosphere alive with myriads of glittering insects. Falling upon a corn-field, they convert in a few hours the green and promising acres into a desolate stretch of bare, spindling stalks and stubs. Their flight may be likened to an immense snow-storm extending from the ground to a height at which our visual organs perceive them only as minute, darting scintillations, leaving the imagination to picture them in indefinite distances beyond. When on the highest peaks of the Snowy range, 14,000 or 15,000 ft. above the sea, Mr. Byers has seen them filling the air as much higher as they could be distinguished with a good field-glass. It is a vast cloud of animated specks glittering against the sun. On the horizon they often appear as a dust-tornado, riding upon the wind like an ominous hail-storm, eddying and whirling about like the wild dead leaves in an autumn storm, and finally sweeping up and past you with a power that is irresistible. They move mainly with the wind, and when there is no wind they whirl about in the air like swarming bees. If a passing swarm suddenly meets with a change in the atmosphere, such as the approach of a thunder-storm or a gale of wind, they come down precipitately, seeming to fold their wings, and fall by the force of gravity, thousands being killed by the fall, as if upon stone or other hard surface. Col. H. McAllister, of Colorado Springs, Col., in 1875 saw a swarm suddenly come down in that place with a rain: 'The ground was literally covered 2 or 3 in. deep. In rising the next day, by a common impulse they would circle in myriads about you, beating against everything animate and inanimate, driving into open doors and windows, heaping about your feet and around your buildings, their jaws constantly at work biting and testing all things in seeking what they might devour. In the midst of the incessant buzz and noise which such a flight produces, in the face of unavoidable destruction everywhere going on, one is bewildered and awed at the collective power of the ravaging host, which calls to mind so forcibly the plagues of Egypt. The noise which their myriad jaws make when engaged in their work of destruction can be realized by any one who has fought a prairie-fire or heard the flames passing before a brisk wind.' The eggs are laid in many kinds of soil, because choice cannot always be made by such almost illimitable hosts. Dry meadows, pastures, bare sandy places, and roadsides are overrun with the procreating swarms. The female when about to lay her eggs forces a hole in the ground by means of the two pairs of horny valves which open and shut at the tip of her abdomen, and which from their peculiar structure are admirably fitted for the purpose. With the valves closed she pushes the tips into the ground, and by a series of muscular efforts and continued opening and shutting of the valves she drills a hole until, in a few minutes, the whole abdomen is buried. The abdomen stretches to its utmost for this purpose, especially at the middle, and the hole is generally a little curved and always more or less oblique. Now with the hind legs hoisted straight above the back, and the shanks hugging more or less closely the thighs, she commences ovipositing. When the hole is once drilled there exudes from the tip of the body a frothy mucous matter which fills up the bottom of the hole and bathes the horny valves. This is the sebific fluid which is secreted by the sebific or cement gland. An egg is laid and deposited in its place by a piece of admirable apparatus. Then follows a period of convulsions, during which more mucous material is elaborated until the whole end of the body is bathed in it, when another egg passes down and is placed in position. These alternate processes continue until the full complement of eggs is in place, the number ranging from 20 to 35. The mucous matter binds all the eggs in a mass, and when the last is laid the mother devotes some time to filling up the somewhat narrowed neck of the burrow with a compact and cellular mass of the same material, which, though light and easily penetrated, is not easily permeable by water and forms an excellent protection. The examination of one of these egg-masses is full of interest. No more perfect arrangement is found in a bee-hive; the eggs are arranged in perfect order, having a beautiful spiral appearance in one aspect and showing a quadrangular arrangement in another. The time for drilling the hole and completing the process of making the egg-mass varies with the weather, in the warmest days taking from 2 to 3 hours, but longer when the mornings and evenings are cool. The ground is often covered by the egg-laying females during the day. It has been thought by some that when the young begin to migrate they are led by kings or queens, and this idea has been formed from seeing a few members of a larger genus of *acridium* (*A. Americana*) with them, and also the coral-winged locust.

The Rocky-mountain locust takes about seven weeks from the time of hatching to attain its full size. As the transformations in the orthoptera are incomplete, there is very little difference in the general appearance of the body, except in size, between the young and the adults. The most noticeable difference is the want of wings in the young, as well as the narrower prothorax. The complete development is accomplished through a series of five molts, during the first four of which the wing-pads become more and more apparent, and during the fifth the insect more rapidly gets its full wings and ceases growing. The first three of the larval skins are shed on or near the ground, under the grass or other cover, and their dry, cast-off shells are often mistaken for dead locusts. The last two molts are made while the insect fastens itself to some elevated

object. Mr. Riley says: "When about to acquire wings the pupa crawls up some post, weed, grass-stalk, or other object, and clutches it securely with the hind-feet, which are drawn up under the body. In doing so the favorite position is with the head downwards, though this is by no means essential. Remaining motionless in this position for several hours, with antennæ drawn down over the face and the whole aspect betokening helplessness, the thorax, especially between the wing-pads, is noticed to swell. Presently the skin along this swollen portion splits right along the middle of the head and thorax, starting by a transverse, curved suture between the eyes and ending at the base of the abdomen. As soon as the skin is split the soft and white fore-body and head swell and gradually extend more and more by a series of muscular contortions; the new head slowly emerges from the old skin, which, with its empty eyes, is worked back beneath, and the new feelers and legs are being drawn from their casings, and the future wings from their sheaths." This all occupies about 15 minutes, and the newly formed insect now turns round and clambers up the cast-off skin, and there rests while the wings expand and every part of the body hardens and gains strength. In 10 or 15 minutes from the time of extrication the wings are fully expanded, and hang down like dampened rags. From this point on the broad hind-wings begin to fold up like fans beneath the narrower front ones, and in another 10 minutes they have assumed the normal attitude of rest. Without careful inspection one would be puzzled to know how the now stiff legs had been drawn out of their old cases; but they were exceedingly flexible and capable of bending at every part over the flexed knee-joint of the case. The whole operation, from the bursting of the skin to the full development of wings, occupies from one-half to three-quarters of an hour.

The locust has many enemies, or animals that prey upon it. One of the most remarkable is the *anthomyia angustifrons*, or egg-parasite, the most widespread of all the egg-feeders. In 1876 this parasite destroyed about one-tenth of all the eggs laid in Missouri, Kansas, and Nebraska; many were seen also in Iowa, Minnesota, Colorado, and Texas. The larva of this insect is a little less than a quarter of an inch long, and sometimes a dozen or more are found in the same locust-egg-pod, where they suck the juices of the eggs. The winged insect is about the length of the larva, with a spread of wing about twice as great. The larvæ of the common flesh-fly also feed upon locust-eggs, and many species of ground-beetles also feed upon them, sometimes settling in swarms in fields where locust-eggs have been laid, and often completely devouring them. They also devour the full-grown locusts. The locust mite (*trombidium locustarum*; Riley) preys upon the adult locust. In the spring the female of this parasite lays from 300 to 400 minute eggs about 2 in. beneath the surface of the ground in the locust-fields. Minute orange-colored mites hatch from these eggs, crawl upon the locusts, and fasten themselves at the base of the wings. The digger-wasps (*larca semirufa*) also catch locusts, sting them, and bury them in their nests for the sustenance of their newly hatched young. But the birds are the great natural destroyers of the locusts, and flocks of them have been known to clear a field in a few minutes. See INSECTIVOROUS BIRDS.

Various methods have been devised by the farmers to destroy locusts or prevent their depredations. One method which has been successfully practiced to save a small crop is to drag ropes over the surface of the grain, repeating the operation until the insects are driven to other parts. The encouragement of the fly-catching birds is one of the effective measures, and the commission advise the offering of rewards for hawks. This has been done with beneficial results in Colorado and other states. The destruction of the eggs may be accomplished on a great scale by harrowing, plowing, and irrigation, the latter method sometimes being much the most economical. Young locusts, before they are winged, may be destroyed by burning the fields when this is feasible. The older locusts are destroyed in various ways by different kinds of apparatus. Some crush them between rollers, some gather them in nets, bags, and other receptacles mounted on wheels and pushed about by hand or driven by horse-power. One of the most efficient pieces of apparatus is the coal-tar pan, known as "Robbins's hopperdozer."

General Anatomy.—This has much in common with other insects, but the proportions vary. A superficial inspection of the locust will show that its body is covered with a hard, articulated shell which protects the internal organs, the articulations having the general form of rings, many of which are again subdivided into pieces. There are 17 of these rings or segments, disposed in three regions, four segments composing the head, three the thorax, and ten the abdomen. The legs consist of five well-marked joints, the tarsi or feet having three joints, and the third joint having two large claws, with a pad between them. The so-called true grasshoppers have tarsi with four joints, and also shrilling organs at the base of the wings, which the locusts have not. The hind-legs, especially the thigh and shank, are very large and well adapted to hopping. The sternum is broad and large. The head in the adult locust is chiefly composed of a single piece called the epicranium, and carries the compound eyes, the ocelli or simple eyes, and the antennæ. While there are in reality four primary segments in the head of all winged insects, corresponding to the four pairs of appendages in the head, the posterior three segments, after early embryonic life in the locust, come to be represented only by their appendages and small portions to which the appendages are attached. The epicranium represents the antennal segment, and most of the piece represents the

tergum, or upper portion of the segment. The antennæ, or feelers, are situated in front of the eyes, and between them is the anterior ocellus, while the two posterior ocelli are situated above the insertion of the antennæ. In front of the epicranium is the clypeus, a piece nearly twice as broad as long, and to this is attached a loose flap covering the jaws when they are at rest. This is the upper lip or labrum. There are three pairs of mouth appendages: 1, the true jaws or mandibles, situated on each side of the mouth; 2, the maxillæ, divided into three lobes, the inner armed with spines, the middle unarmed and spatula-shaped; while, 3, the outer lobe is a five-jointed feeler, called the maxillary palpus. The floor of the mouth is formed by the labium, which is composed of two second maxillæ, fused together in the middle line. Within the mouth the tongue is placed upon the labium, and is a large, membranous, hollow expansion of the latter organ (Packard). The internal anatomy of the locust is really marvelous, although not very complex. The esophagus terminates at the center of the head, where the crop commences, and where there is a slight constriction with oblique folds armed with spine-like teeth. After leaving the head the folds in the crop become longitudinal, upon which the teeth are arranged in rows, each row, composed of groups of from three to six teeth, pointing backward, so as to push the food into the stomach. It is in the crop that the substance known as "molasses" is produced, and which is the partly digested food, mingled with the secretion of the crop. The true or chyle stomach commences a little behind the insertion of the middle pair of legs. It is paler than the crop, which is of a flesh color. Between the crop and stomach, externally, there are six remarkable organs, called gastric cæca. They are of a sacculated, spindle shape, placed longitudinally side by side, surrounding the posterior part of the crop and the anterior part of the true stomach, and when dilated touching each other at the middle. The anterior ends are attached to the latter third of the crop, while the posterior and more pointed extremities float freely in the body cavity, and pour into it the chyle of the stomach, insects having no system of lacteal vessels. These cæca are true dilatations of the chyle stomach. The uriniferous tubes are situated at the junction of the posterior extremity with that portion of the intestinal canal called the ileum. These tubes are arranged in 10 groups of about 15 tubes each, which, when stretched out, are about as long as the body, and are convoluted around the alimentary canal. There is an ileum, a colon, and a rectum, the latter having six large rectal glands on the outside, held in place by six muscular bands. The nervous system of the locust consists of a series of nerve-centers connected by bands. These centers or ganglia are: 1, supra-esophageal ganglion, or brain, which furnishes the eyes and the ocelli with nerves; 2, infra-esophageal ganglion; 3, three thoracic ganglia connected by double cords; and 4, five abdominal ganglia connected by single medial cords. There is also a sympathetic system, composed of three principal ganglia, and a not otherwise complex system of nerves. The respiration is much like that in other insects. See INSECTS. In the female the ovaries, immediately before ovipositing, occupy a considerable portion of the abdomen, and consist of two masses of tubes, with air-sacks and tracheæ ramifying among them. There are from 17 to 22 tubes in each ovary in *C. femur rubrum*, and more in *C. spretus*, sometimes as many as 50 in each, or 100 in both. Indeed, the mouth, crop, stomach, and reproductive system of the migratory locust may be said to practically occupy the whole of the body cavity, the whole physical energy being spent in devouring and multiplying. As to the organs of sense they have two large, well-developed compound eyes, and three ocelli or simple eyes, which, no doubt, very well serve the purpose of vision. The antennæ are probably organs of taste as well as of touch, but it is not known whether the tongue has any gustatory sense. The ears are well developed, and there is no doubt but that the sense of hearing is acute from the fact that drums and kettles are efficient means of disturbing these insects.

LODGE, THOMAS, 1556-1625; b. Lincolnshire, Eng.; studied at Oxford, but left without taking a degree, and went to London; became an actor and began to write for the stage about 1580, producing his *Defense of Stage Plays*. In 1584 he studied law at Lincoln's inn, and soon after accompanied Clarke and Cavendish as a soldier on their expeditions. Some time afterwards he studied medicine, and took a degree at Avignon. Returning to London he practiced with success, and published in 1603 a *Treatise of the Plague*. As a dramatist he occupies a high rank. His extant plays are: *The Wounds of Civil War lively set forth in the True Tragedies of Marius and Sylla*; *A Looking-glass for London and England*. In 1819 a collection of his pastoral and lyric poetry was published. His novel *Rosalynde: Euphues Golden Legacie*, found in his cell after his death at Silxendra, gave Shakespeare the framework of the plot in his *As You Like It*. In its prose descriptions and narratives, as well as in the interspersed verses, the novel is often finely poetical. *A Margarite of America*, written probably during his voyage with Cavendish, was published in 1596. He translated Josephus and Seneca. While a student at Lincoln's inn he published *Alarum against Usurers*. He is said to have died of the plague.

LODOME'RIA, the Latin name of a principality annexed by Russia in the 11th century. At the partition of Poland, 1772, Austria gave the name Galicia and Lodomeria to her share of the spoils, though Russia retained the old province of Lodomeria.

LOFTUS, WILLIAM KENNETT, 1820-58; b. England. From 1849 to 1852 he was a resident of Turkey, and, devoting himself to archaeology, made extensive explorations on the sites of the ancient cities on the Tigris and Euphrates. He made renewed examinations in the same field under the auspices of the Assyrian society of London in 1853, and a few years later published a volume of his *Travels and Researches in Chaldaea and Susiana*, with illustrations. His contribution of specimens of ancient Assyrian sculpture to the British museum are highly valued.

LOGAN, a central co. of Dakota; 1800 sq.m.; formed since the census of 1870. It includes a large portion of the *Plateau du Coteau du Missouri*, elevated prairie land, dry and thinly settled, lying between 98° and 99° w. long., and 45° and 48° n. lat.

LOGAN, a central co. of Illinois, 574 sq.m.; pop. '80, 25,041; watered by Salt, Kickapoo, and Sugar creeks. It is traversed by the Pekin division of the Wabash, and the Chicago and Alton, and Gilman, Clinton and Springfield railroads. The soil is very fertile, mostly prairie land; productions: wheat, oats, hay, cattle, and pork. In 1870 this county produced 4,221,640 bushels of Indian corn, being more than any other county in the United States, except Sangamon co. in the same state. Timber is very scarce, but there is an abundance of coal. Co. seat, Lincoln.

LOGAN, a co. in Kentucky, immediately n. of the Tennessee state line; 600 sq.m.; pop. '80, 24,358; traversed by the Memphis, Clarksville and Louisville railroad. The surface is varied, the soil fertile; productions: tobacco, wool, cotton, and grain. Co. seat, Russellville.

LOGAN, a w. central co. in Ohio; 415 sq.m.; pop. '80, 26,628; undulating surface and productive soil. Live stock, wool, and grain are the most important productions, and there are manufactures of flour, furniture, lumber, etc. The Cincinnati and Sandusky, and the Cleveland, Cincinnati and Indianapolis railroads traverse this county. Co. seat, Bellefontaine.

LOGAN, a co. in West Virginia, n.e. of the Kentucky line, from which it is separated by a fork of the Big Sandy river; 825 sq.m.; pop. '80, 7,329; watered by the Guyandotte river. The surface is varied, chiefly hilly, and the soil is productive. This county possesses great mineral wealth, yielding coal and iron, salt and petroleum. Co. seat, Logan Court-House.

LOGAN, 1720-80; the name adopted by the Indian chief Tah-gah-jute, in honor of his friend gov. Logan of Pennsylvania. Prior to 1770 he lived in Pennsylvania, where his father, a chief the Cayugas, had lived before him. He was well known on the Pennsylvania and Virginia frontier, a brave chief, of noble presence, always friendly to the whites, and endeared to them by his many good qualities. In 1770 he removed to the shores of the Ohio river with his family, and there fell into intemperate habits. In 1774 Logan's family were murdered by a marauding band of whites. This cruel and cowardly act roused the chief to a determination for vengeance, and he devoted himself to stimulating the tribes to rise against the white settlers. In this he was completely successful, and a savage war began, which lasted six years, with the most terrible cruelties, in the performance of which Logan himself was pre-eminent. He is said to have taken thirty scalps with his own hands. The war closed with the defeat of the Indians, but Logan refused to join the other chiefs in begging for peace with the whites. Instead of any such act of submission, he sent an address to lord Dunmore, governor of Virginia, first published by Thomas Jefferson in his *Notes on Virginia*. Its authenticity has been questioned, but it has popularly been accepted as a genuine instance of Indian eloquence. Although often reprinted in school readers and other ephemeral works, it is sufficiently characteristic and pertinent to deserve permanent preservation. "I appeal to any white man to say if ever he entered Logan's cabin hungry, and he gave him not meat; if ever he came cold and naked, and he clothed him not. During the course of the last long and bloody war Logan remained idle in his cabin, an advocate for peace. Such was my love for the whites that my countrymen pointed as they passed, and said, Logan is the friend of the white man. I had even thought to have lived with you, but for the injuries of one man. Col. Cresap, the last spring, in cold blood and unprovoked, murdered all the relations of Logan, not even sparing my women and children. There runs not a drop of my blood in the veins of any living creature. This called on me for revenge. I have sought it; I have killed many; I have fully glutted my vengeance. For my country I rejoice at the beams of peace. But do not harbor a thought that mine is the joy of fear; Logan never felt fear. He will not turn on his heel to save his life. Who is there to mourn for Logan? Not one." It is doubted if the officer to whom Logan refers was concerned in the massacre of his family. The chief now fell a complete victim to intemperance, became quarrelsome and dangerous, and was eventually killed by a relative in self-defense.

LOGAN, CORNELIUS A., b. Baltimore, 1800; of Irish descent; after sailing as supercargo, became a journalist, then an actor and dramatist. He had three daughters, Olive, Eliza (Mrs. Geo. Wood, 1830-72), and Cecilia, all actresses of talent; of whom the first is also a lively writer. A poem entitled *The Mississippi* was one of Mr. Logan's well-known productions.

LOGAN, GEORGE, 1753-1821; b. Stenton, Penn.; educated in England, and after three years' study at the medical school in Edinburgh made the tour of Europe. Returning to America in 1779, he spent some time in applying science to agriculture, and subsequently was a member of the legislature for several terms. At the commencement of the French revolution he joined the party of Jefferson and the republicans against the federalists. In 1798 he went to Europe as a private citizen to use his influence to prevent a threatened war between France and the United States, having received letters of introduction from Jefferson instead of passports from the secretary of state. Though successful in inducing the French government to annul the embargo on American shipping, and in preparing the way for a negotiation resulting in peace, he was denounced as the treasonable envoy of a faction by the federalists, who afterwards had an act passed by congress, called the *Logan act*, making it a high misdemeanor for a private citizen to interfere in a controversy between the United States and a foreign country. He was a member of the U. S. senate 1801-7, and in 1810 went as a volunteer to England for the purpose of settling difficulties between Great Britain and the United States, but the mission was fruitless. He was a member of the philosophical society and of the board of agriculture. He published *Experiments on Gypsum*, and on the *Rotation of Crops*. In religion he was a member of the society of Friends.

LOGAN, JAMES, 1674-1751; b. Lurgan, Ireland, of Scotch Quaker stock; was well educated, and entered into business as a merchant; in 1699 accompanied William Penn to Pennsylvania, where he held various public offices, such as provincial secretary, chief justice, president of council, acting governor, etc. He wrote *Experimenta de Plantarum Generatione*, a translation of Cicero's *De Senectute*, and other works in Latin and in English prose and verse. Died at Stenton, near Germantown.

LOGAN, JOHN, 1748-88; b. Midlothian, Scotland; educated at Edinburgh university, and settled as minister of Leith in 1773. His first literary work was a series of lectures on the philosophy of history, followed, in 1781, by a volume of hymns and odes. It is claimed that the *Ode to the Cuckoo*, by far the best of these, was stolen from the papers of Michael Bruce, a deceased friend. The other poems, however, possess some merit. They may be found in Anderson's collection. Of his tragedies, *Unnarnede* (1783) is alone worthy of note. A review of the charges against Warren Hastings caused the prosecution of the author. Logan lost his position at Leith through his play-writing, and charges of immorality, and died in London. In 1790 a collection of his sermons was published. They have great vigor and earnestness.

LOGAN, JOHN A., b. Jackson co., Ill., 1826; received a limited common-school education; at the outbreak of the war with Mexico enlisted as a private, but became quartermaster of his regiment, with the rank of first lieutenant; after the close of the war was elected clerk of the court of his native county; in 1852 graduated at the Louisville university, and afterwards was admitted to the bar; was a member of the state legislature in 1852-53 and 1856-57, and prosecuting attorney from 1853 to 1857; was elected to congress in 1858 and again in 1860, resigning his seat in 1861 to enter the army. He was made colonel of the 31st Illinois volunteers, and led the regiment in the battles of Belmont and fort Donelson; was wounded in the latter engagement, and in Mar., 1862, was appointed brig. gen. of volunteers, and a few months later, maj. gen.; in the Vicksburg campaign was in command of a division of the 17th corps, distinguishing himself at Port Gibson, Champion hills, and in the siege and surrender of Vicksburg. In 1863 he was put in command of the 15th corps, which he led with valor until the death of McPherson, when he took command for a time of the army of the Tennessee. On being relieved by gen. O. O. Howard he returned to the command of his corps, which he led until the fall of Atlanta, when he obtained leave of absence to engage in the effort to re-elect Abraham Lincoln for president. He afterwards rejoined his corps, leading it in the march through the Carolinas, and until he succeeded gen. Howard in command of the army of the Tennessee. Having resigned from the army in Aug., 1865, he was in the following Nov. appointed minister to Mexico, but declined. He was subsequently elected to congress for two successive terms, and in 1871 to the senate of the United States, of which he is still (1881) a member. He is an earnest advocate of the principles of his party, and is a strong and ready speaker.

LOGAN, Sir WILLIAM EDMOND, LL.D., 1798-1875; b. Montreal, Canada; graduated at the university of Edinburgh in 1817, and in 1818 became partner in a mercantile house in London; 1829-38, manager of a mining enterprise at Swansea, Wales; in 1841 became head of the geological survey of Canada; represented that country in the expositions of 1851 and 1862 at London, and in that of Paris in 1853; was made a knight of the legion of honor in 1855, and a knight-bachelor by the queen in 1856. Died in Wales.

LOGANSPOUT, a city in Indiana, capital of Cass co.; at the junction of the Wabash and Eel rivers; pop. '70, 8,950; reached by the Detroit, Eel river, and Illinois; Logansport, Crawfordsville, and South-western; Pittsburgh, Cincinnati, and St. Louis; and Toledo, Wabash, and Western railroads. It is the center of a productive region, well wooded, and rich also in building-stone. There is a Universalist college and public-school buildings, 14 churches, banks, etc. The city is handsomely laid out and well paved, with fine residences and stores. It has important manufacturing industries, employing more than 1000 operatives.

LOGIC (*ante*). Regarding the science as concerned directly only with the form and not the substance of reasoning, logic finds its starting point in human intuitions and thoughts, which, by the processes of conceiving, judging, and reasoning, produce, respectively, concepts, judgments, and arguments. These products, in turn, are expressed in language by terms, propositions, and syllogisms. It is with the division, definition, classification, and contradistinction of these, and more especially with the truth or fallacy of all conceivable syllogisms, that logic principally deals. Thus, concepts may be congruous or incongruous, may or may not be true, or valid, or distinct; judgments may be as to quantity, universal (all M is P) or particular (some M is P); as to quality, they may be affirmative (all M is P) or negative (no M is P), they may be categorical or conditional, true or not, and so on. Each judgment contains two concepts, which stand in the relation of subject and predicate and are connected by some verb of being; and it may be noted that predicables, or terms affirmable of others, are grouped in five classes, as they denote genus, species, difference, property, and accident. Either of these concepts is said to be distributed when it is taken as a whole, and undistributed when but part is taken. From the various attributes and varieties of the judgments and their elementary concepts are evolved rules as to opposition and distribution, such as: "The truth of a universal implies the truth of a negative," and "All universals distribute the predicate."

As concepts compose the judgments, so judgments or propositions compose the syllogism. For example, in this simple but complete syllogism: "All M is P; all S is M; hence, all S is P," the first proposition is called the major premise, the second the minor premise, and the third the conclusion. Now, it has already been seen that every proposition may be affirmative or negative and either universal or particular. We thus have the four primary propositions: universal affirmative, all S is P (A); universal negative, no S is P (E); particular affirmative, some S is P (I); particular negative, some S is not P (O), which in all works of logic are designated by the capitals A E I O, as above indicated. Combined in all possible ways to form syllogisms (three in each), we obtain 64 conceivable forms, of which only 11 are found to be sound when tested by the laws of distribution, and others which apply. These are called moods. Again, by changing the position of the middle term, each mood may be made to take four forms, which are termed figures. But of the 44 resulting syllogisms, only 19 can be proven true under the usual tests. To designate these, there has long been in use a set of otherwise meaningless words, often arranged in mnemonic Latin verses, in which the vowels represent the propositions and their order. These are as follows:

Fig. I. BARbArA, cElArEnt, dArI I, fErIOque, *prioris*:

II. CEsArE, cAmEstrEs, fEstInO, bArOkO, *secundæ*:

III. Tertiu dArAptI, dIsAmIs, dAtIsI, fElAptOn, bOkArD, fErIsOn habet:
quarta insuper addit,

IV. BrAmAntIp, cAmEnsEs, dImArIs, fEsApO, frEsIsOn.

Ferio, for instance, stands for the syllogism E I O, as: "No M is P; some S is M; hence, some S is not P." The syllogisms of the last three figures may all be reduced to the form of the first for convenience in applying tests. One of the most interesting discussions connected with the science of logic arose from the proposition of sir William Hamilton to substitute for these 19 universally accepted syllogisms, others arising from the fact that any affirmative proposition may or may not have its subject, and any negative proposition its predicate, distributed. This would give eight propositions instead of four, and entirely overthrow the old method. Most modern treatises expound Hamilton's theory and notation, but the system descended from Aristotle is more easily understood and applied.

Syllogisms may be hypothetical, disjunctive (as: S is either P or Q; but S is P; *ergo*, S is not Q), or dilemmatic, a combination of the two. Sometimes one proposition does not appear, forming the enthymeme; and again, several syllogisms may be linked together, the whole being termed the chain or sorites. Still another form is the epichirema, where the reason for each premise is given with it.

Fallacies are errors resulting from the improper use of words or mental processes in argument. They are variously classified. Among the most important are: generalization, or the attributing to a class individual limitations, as "S is a clergyman and a hypocrite—*ergo*, all clergymen are hypocrites;" equivocation, where a word is used in two senses; the *non vera pro vera*, where a premise is false; accident, where an accidental property is made to appear as a substantial attribute. For others and a more complete treatment of the subject, see FALLACY. An ancient Greek fallacy, which appears perennially as a modern joke, is the case of a man who says, "I lie." Does he lie or not? If he lie, he tells the truth; if he speak truly, he lies.

The study of formal logic in the monastic schools and universities of the middle ages was carried to an extent more recondite than profitable, the result being a not unmerited contempt for the science as then limited by the scholastic method. A classification and discussion of syllogisms in which no attention is given to the origin of the concepts which form the premises or to the process of induction, resembles rather a

series of mathematical permutations than fruitful intellectual investigation. In fact, in our day, prof. Jevons has constructed what he calls a logical machine, which will perform many of the operations of syllogistic reasoning. In modern times the study has been in a measure reinstated; but it has been through the enlargement of the ground allotted it and the installment of induction as a most important factor. Thus widened in its scope, there may be derived from it laws of reasoning of the greatest value as forming the basis of all investigation in physical, philosophical, and moral science.

Among numerous authors who may be consulted on this topic are, besides Hamilton and Mill, archbishop Whately, Wallace, Jeremy Bentham (essays), William Stanley Jevons; and of American writers, profs. Bowen of Harvard, Wilson of Cornell, and Schuyler of Baldwin.

LOGROÑO, one of the six modern provinces which form the ancient province of Castilla la Vieja in Spain; 1945 sq.m.; pop. 182,941. It extends along the right bank of the Ebro, and includes portions of territory which formerly belonged to the provinces of Burgos and Soria. It is a productive region, rich in wine and corn, fruits and vegetables. Minerals also abound, and there are valuable mineral springs. Near the city of Logroño, a few miles s. of the Ebro, was fought, April 3, 1367, a desperate battle between Henry, count of Trastamara, elevated to the throne of Castile by the people of that country, and Edward the black prince, who had formed an alliance with the detestable Charles II., king of Navarre, surnamed "the wicked," to replace Pedro the cruel on the throne of Castile, from which he had been driven on account of his many enormities. This battle was decisive, and resulted in returning to Pedro his throne.

LÖHER, FRANZ VON; b. Paderborn, Germany, 1818; after studying at several German universities, traveled in Europe and visited Canada and the United States in 1846-47, and in 1849 established the *Westfälische Zeitung* at Paderborn. For political agitation he was imprisoned by the Prussian government, but was acquitted by the court. In 1853 he was professor at the university of Göttingen, and in 1855 in the university of Munich, and secretary of the academy. His works are *Des Deutschen Volkes Bedeutung in der Weltgeschichte*; *Geschichte und Zustände der Deutschen in Amerika*; the epic poem *General Spork*; *Land und Leute der alten und neuen Welt*; *Jacobaea von Bayern*; *Aus Natur und Geschichte vom Elsass-Lothringen*.

LOIGNY, BATTLE OF, Dec. 2, 1870, the Germans, under the grand-duke of Mecklenburg, winning a signal victory over the French, led by gen. Chanzy. The Germans lost in killed and wounded 3,000 men, the French nearly twice this number, besides 3,000 prisoners and 7 guns. Loigny, the site of the battle, is a hamlet of France, in Eure-et-Loir, 30 m. s.s.e. of Chartres.

LOIR, a small river of France, having its source s.w. of Paris, and running thence in a generally s.w. course to its junction with the Sarthe, a tributary of the Loire. Length about 200 miles. Navigable by means of 39 locks a distance of about 70 miles.

LOJA, a city of Ecuador in South America near the Andes, lat. 4° s.; pop. 12,000. It is the center of a great commerce in quinine. The surrounding country is elevated so far above the sea that grains of the temperate zone are produced as well as the fruits of the tropics. Manufactures of wool, cotton, and carpets are among the chief industries of the city.

LOLA MONTEZ (MARIA DOLORES PORRIS), Countess of Landsfelt, 1824-61; alleged by Mircourt, author of *Les Contemporaines*, to have been born in Montrose, Scotland, though she claimed Seville, Spain, as her birthplace. When quite young she married capt. James of the East India service against the wish of her mother, and traveled with him in India. She also accompanied him during an expedition against the Afghans. About 1838 she obtained a separation from her husband, and traveled in Europe, leading an erratic life in the different capitals, at one time singing barcaroles in the streets of Warsaw, and again appearing as a danseuse in the theater of that city. She now adopted the stage as a profession, appearing usually as a dancer, and, though possessing little skill in that direction, achieved a certain degree of popularity by her graceful person and charming vivacity of manner. In 1847 she visited Munich, and there attracted the attention of king Louis of Bavaria. She was at this time very attractive, handsome, and with a remarkable talent for political intrigue. The king gave her a residence in Munich and an income estimated at \$25,000 per annum, and made her the confidant of his political schemes. She soon exercised a powerful influence, and, as is believed, for the interest of Bavaria. But she made many enemies, the Jesuits, as she averred, being active against her. A difficulty with the students of the university of Munich at length precipitated her downfall, and the king was forced by his counselors to consent to her arrest and deportation from the country. This act was followed by the abdication of the king himself, who afterwards vainly sought to renew his association with Lola Montez, who absolutely rejected his advances. During her stay in Munich, she was named by the king countess of Landsfelt, with the consent of the crown prince. Lola now visited England, and in 1849 was married to George Stafford Heald, esq., of the

2d life-guards, a gentleman of family and position, with an income of £6,000 per annum. His family opposed the match, and on Aug. 6, 1849, through their instigation, she was brought before a London police court on a charge of bigamy; her former husband, capt. James, being still living in India. Her defense (of a divorce) was not accepted, the law prohibiting either party from marrying again during the life-time of the other; Heald accordingly obtained a divorce, and Lola continued to lead her former wandering life. She sailed for New York in the autumn of 1851, on board the same steamer with Louis Kossuth, arriving on Dec. 5. She appeared at the Broadway theater in a piece called *Lola Montez in Bavaria*, and as a danseuse in most of the large cities. In 1855 she took a company of players to Australia, and gave some of her characteristic performances in the principal towns. In 1858 she delivered a lecture on *Beautiful Women in New York*. The last few years of her life were passed in retirement.

LOLIGO, or SQUID. See CALAMARY, *ante*.

LOLLARDS (*ante*), a name at first, about the beginning of the 14th c., applied to the Cellites, who, at Antwerp, devoted themselves to the care of persons ill with pestilential diseases; and afterwards, during the close of that century and through the next, given to the followers of Wycliffe. Various explanations of the name have been suggested, one of which, favored by many, is that derived from the Low-German word *lullen*, or *lollen*, which means to sing low or softly; it was applied to the Cellites because they sang low and plaintively at funerals. A later and more probable theory derives it from *lollardus*, the Latin form of the old English "loller," one who lolls or lounges about, a vagabond. It was applied at first both to the begging-friars and to the Wycliffites; but afterwards being restricted to the latter, it occasioned, by its resemblance to the Latin "lolia," the punning accusation that they were tares among the wheat. Many of them, sent forth by Wycliffe to carry the gospel into the remote villages, were called "poor priests" by the people, to large numbers of whom they preached in the fields, churchyards, and market-places.

After Wycliffe had taken the degree of D.D. at the university of Oxford, and had commenced there his earnest appeals against papal errors, he aroused the hatred of the bishops, and became prominent as an advocate and leader of reform. When he retired from the university to the little parish of Lutterworth, the work went on with unabated power. Those who had been instructed by either his preaching or writings were active in diffusing his doctrines abroad. His followers were found among all classes of people; some of the more distinguished being influenced somewhat perhaps by political motives, but the greater part chiefly by the power of religious truth. The judicial examinations of those who, in the next age, were arrested for heresy show that they all cherished, substantially, the doctrinal views which Wycliffe had taught. The principal of these views were: the supreme authority of the Scriptures as the rule of faith; the finished work of Christ as the only Savior; and the denial of transubstantiation, auricular confession, image worship, the papal hierarchy, and the priestly offices in the mass. At the time of Wycliffe's death the number of his followers was increasing rapidly, as was indicated by the somewhat extravagant affirmation of Knighton that nearly every second man in England was a Lollard. In 1382 a council, convened by archbishop Courtney, condemned 10 of Wycliffe's articles as heretical and 24 as erroneous. The archbishop published an order forbidding any man, of any estate or condition whatsoever, to hold, teach, preach, or defend the aforesaid heresies and errors, or any of them, or even allow them to be preached or favored either publicly or privately. Bishops and priests were exhorted to become inquisitors of heretical pravity, and were threatened with excommunication if they neglected their duty in this respect. The chancellor of the university, charged with "being somewhat inclined to the errors aforesaid," was enjoined to allow no one under his jurisdiction to teach or defend them. At length, violent persecution was commenced. Some of the accused recanted, and became bitter persecutors of their former friends. Others fled out of the country. In other parts, also, of the kingdom the Lollards were actively teaching their doctrines. In Leicester and the vicinity they made great progress; and as the people hid their teachers, the whole city and all its churches were placed under interdict until all the Lollards of the town should forsake their heresy and obtain absolution. To arrest their advance and break up their meetings, parliament resolved that if any persons, on conviction, refused to abjure their errors, they should be delivered over to the secular arm to be burned. William Sautre, "a good man and faithful priest, inflamed with zeal for true religion," was condemned and committed to the flames in an open part of London. The "cruel constitution" of archbishop Arundel forbade any one to preach in English, either within the church or without, except by permission of the bishop. Schoolmasters and teachers were forbidden to teach anything contrary to what the church had declared. No book or treatise of Wycliffe was to be read anywhere. No person was allowed to write or print a translation of any text of Scripture into English or any other language. No one was to dispute upon articles determined by the church. No scholar or inhabitant of Oxford university was to propose or defend anything contrary to the determinations of the church.

But all these measures proving insufficient to suppress the hated opinions, the active

persecution also went on, and many persons were burned. The accession of Henry V. was signalized by his surrendering to the persecutors his friend sir John Oldcastle, who was arrested, condemned, and excommunicated. At first he contrived to escape from prison, but was rearrested, and in 1417 was burned at the stake. The parliament further enacted "that whatsoever they were who should read the Scriptures in the mother tongue, they should forfeit land, cattle, body, life, and goods from their heirs forever; and so be condemned for heretics to God, enemies to the crown, and most arrant traitors to the land." In case of relapse after pardon, they were to be hanged as traitors against the king, and then burned as heretics against God. The last execution took place in 1431.

In Scotland, also, especially in the western districts, the Lollards were numerous, and suffered persecutions during different parts of the 15th century. Near the close of it 30 persons were summoned before king James IV. and the great council. Happily for them the king refused to sanction their condemnation, and they were released. After the opening of the 16th c. the Lollards gradually became incorporated with the reformed churches.

LOMBRIZ, an epizootic disease which attacks young sheep in Texas and New Mexico. Great numbers of reddish hair-like worms infest the stomach and flesh of the animals, destroying them in droves. It generally attacks those which are not well cared for, or at least proves more fatal among them. The usual remedies which are said to be attended with success are equal parts of salt, sulphur, and sulphate of iron (green copperas).

LOMÉNIE, LOUIS LÉONARD DE, b. France, 1818; descended from eminent ancestors, one of whom was a victim of the massacre of St. Bartholomew's. His first literary work was a series of biographical sketches, published under the title *Galerie des Contemporaines Illustres par un Homme de Rien*. In 1845 he obtained the chair of literature in the college of France. In 1871 he became a member of the French academy in the place vacated by the death of Merimée. His *Biographies des Hommes de 1789*; *Beaumarchais et son temps, études sur la Société Française*; *La Comtesse de Rochefort et ses Amies*; and *Mirabeau*—are among his principal works.

LOMONOZOFF, MIKHAIL WASITOWITZ, 1711–65; b. Russia; son of a poor fisherman, who in the midst of poverty and want exhibited such hunger for knowledge and instinct for poetry as to excite the friendship of a priest, who placed him in a school of Moscow. Thence his talents procured him entrance to the university of Kiev, and to the academy of St. Petersburg. His great learning in due time secured him the position of professor of chemistry and director of the mineralogical cabinets of the university of St. Petersburg. He was sent by that institution to Germany to acquire a practical knowledge of mining and mineralogy, and while there familiarized himself with the German poets. The range and variety of his studies and authorship are remarkable. It embraces annals of the Russian sovereigns, a history of Russia, works on mineralogy and chemistry, a Russian grammar and rhetoric, original poems, and a great number of translations. He is called the father of modern Russian literature, and his grammar is said "to have drawn out the plan, and his poetry to have built up the fabric of his native language." The life of Peter the great was the subject of his main poem, a heroic epic in two cantos, said to be unsurpassed in the language. He became one of the counselors of state, and died in middle life, crowned with the esteem and admiration of his countrymen.

LOMUS, in Hindu mythology—according to Vollmer—is the first created being formed by Brahma. Deciding to devote himself to the contemplation of divine things, in order to be undisturbed he buried himself in the ground. This pleased the gods so much that they loaded him with favors, increased and confirmed his power and piety, and assured him a duration of life surpassing even that of Brahma. Lomus is said to be 20 m. long, and covered with hairs, of which he draws out one during the lapse of each cycle of Brahma, and will die only after the last is drawn.

LOMZA, a government of Russia, formerly a part of the Polish government of Augustovo; 4,666 sq. m.; pop. 501,385. It is bounded by the government of Grodno on the e. and by e. Prussia on the n. w. Capital, Lomza.

LONA'TO, a t. in n. Italy, province of Brescia; pop. 6,462. It is situated on a height about 3 m. from the southern shore of lake Garda, surrounded by walls, defended also by a citadel. It is in a fine silk district. The principal church is surmounted by a splendid dome. The town is of Roman origin, was devastated by war and pestilence in the middle ages, and in modern times was the scene of two great battles between the French and Austrians in 1706 and 1796, the French being in both victorious.

LONDON (*ante*). Following is the table of population for the metropolis from the tables of the registrar-general for 1871:

PART OF MIDDLESEX.

PART OF SURREY AND KENT.

PART OF MIDDLESEX.			PART OF SURREY AND KENT.	
West Districts.	Central Districts.	East Districts.	South Districts.	
Kensington..... 283,153	St. Giles.... 53,556	Shoreditch..... 127,164	St. Saviour {	Southwark { 175,049
Chelsea..... 71,089	Strand 41,339	Bethnal Green... 120,194	St. Olave {	122,398
St. George, Han-	Holborn.... 163,491	Whitechapel 76,573	Lambeth.....	208,342
over square.... 155,936	London city 75,983	St. George in the	Wandsworth.....	125,060
Westminster.... 51,181		East..... 48,052	Camberwell.....	111,306
North Districts.		Stepney..... 57,690	Greenwich.....	100,600
Marylebone..... 159,254		Mile End, Old	Lewisham.....	51,557
Hampstead..... 32,281		Town..... 93,152	Woolwich... ..	73,380
St. Pancras..... 221,465		Poplar..... 116,376		
Islington..... 213,778				
Hackney..... 124,951				
In Middlesex.....			2,283,568	
" Surrey.....			742,155	
" Kent.....			225,537	
Total population.....			3,254,260	

LONDONDERRY, CHARLES WILLIAM STEWART VANE, Marquis of, 1778-1854, b. England. Distinguished both as a soldier and diplomatist in the English service from the beginning of the French revolution until the fall of Napoleon in 1815, and a member of the congress of Vienna the latter year. His surname of Vane was added on his marriage with a great heiress of that name. He is the author of a *History of the Peninsula War* in Spain; editor of the correspondence of his brother, lord Castlereagh; and constructor of the harbor of Seaham, England, out of his wife's estate.

LONDON PRIDE, *Saxifraga umbrosa*, a perennial evergreen from southern Europe. It was brought to Great Britain and cultivated as a garden plant, but soon spread over the fields, especially in Ireland, where it is known as St. Patrick's cabbage. Flower stems, 6 to 12 in. high, bearing a loose panicle of small pink flowers marked with spots of a deeper color. It is used for making borders in gardens.

LONG, ELI, b. Woodford co., Ky., 1837; graduated at the Frankfort, Ky., military school in 1855, and in 1856 was appointed a second lieut. of cavalry in the army of the United States; served for a time with his regiment in conflicts with Indians. In May, 1861, he was promoted to a captaincy, and in 1863 became col. of the 4th Ohio cavalry. He was actively engaged in the most important campaigns at the west, much of the time commanding a brigade. In 1864 he was appointed brig.gen., and in 1865 he led his division of cavalry in the capture of Selma, Ala., receiving a severe wound in the head. In 1867 he was placed upon the retired list with the full rank of maj.gen.

LONG, STEPHEN HARRIMAN, 1784-1864; b. Hopkinton, N. H. After graduating at Dartmouth in 1809, he became a teacher, but in 1814 was appointed 2d lieut. in the U.S.A., corps of engineers; was brevetted maj. in 1816, lieut.col. in 1826, and in 1861 was made chief of topographical engineers, with rank of col. His explorations began in 1816, when he made under great difficulties a survey of the Mississippi and its branches, which at once brought him into public notice. Soon after he led an expedition from the Mississippi to the Rocky mountains, one of the noblest peaks of which bears his name. The results of these arduous undertakings are to be found in works on the subject by Edwin James and W. H. Keating (1823 and 1824). The introduction of railroads furnished col. Long a grand opening for the exercise of his energy and ability. He was concerned in the construction of many of the principal roads of the south and west, and was especially successful in bridge-building. He was the first to suggest the application of the rectangular trussed frame to bridges. He was also extensively employed in the improvement of rivers and harbors. In 1863 col. Long retired from the U.S. army, but still engaged in many enterprises. The long record of remarkably varied and successful labor in every branch of his profession was closed by his death at Alton, Ill.

LONG ACRE, JAMES BARTON, 1794-1869; b. Delaware co., Penn.; served an apprenticeship with the eminent engraver, Murray, of Philadelphia, and was afterward for many years engaged in illustrating American works. He was associated with James Herring in the preparation of the *National Portrait Gallery of Distinguished Americans*, a work in 4 vols., published 1834-39. In 1844 he was appointed engraver of the U. S. mint, and retained that post until his death. He was the designer of the modern gold coinage of the United States, and superintended the work of remodeling the gold coinage of Chili.

LONG BRANCH, a village in Monmouth co., N. J., includes the village proper, about a mile from the ocean, and the beach with its hotels and arrangements for bathing; pop. 5,000. It is one of the leading watering-places in the United States, and is annually, in the season, the residence of as many as 30,000 visitors from all parts of the

country. Among the principal hotels are the East and West End, United States, Howland's, the Metropolitan, and Leland's. Here also are the summer residences of a number of distinguished persons from New York, Philadelphia, and other cities. Communication is had with New York by steamboat and direct railroad, the latter opened in '75. The village is fully supplied with shops, in some instances branches of large establishments in New York. There are 6 churches, some manufactories, and 1 weekly newspaper, which becomes a daily during the season. The beach is unequaled in extent and convenience in this country; and, during the months of July and August, when crowded with bathers in striking costumes, and throngs of spectators in fashionable attire, presents a scene of singular brilliancy.

LONGCHAMPS, a part of the Bois de Boulogne w. of Paris, for centuries the resort of the pleasure-seekers of that city; still one of the most brilliant promenades in the world, and the site of the principal race-ground of France. It has an interesting history. As early as the 13th c. the abbaye of Longchamps was founded by Isabel, sister of Saint Louis. Monasteries, nunneries, and hospitals gathered round it as they were founded and endowed in successive reigns of the kings of France, until the place at one time became the seat of forty religious organizations. Before the time of Henry IV. they had become the scene of corrupt practices, so that he seems to have had no difficulty in taking Catherine de Verdun, a nun of the age of 22, from the convent to be his mistress. Vincent de Paul, writing to cardinal Mazarin in 1652, says that "this convent for 200 years has been marching towards total depravity of manners to ruin. Its parlors are open to all, even to young gentlemen without parents; the brothers and rectors do not object. The lady *religieuses* wear their garments immodestly and carry gold watches. When war forces them to take refuge in the city they lend themselves to scandal, and go alone and in secret where they are desired." A century before out-door preaching had attracted great crowds from Paris to Longchamps, where, under cover of religious fervor, license found a cloak. In 1521 pope Leo X., by a bull, accorded to the religious organizations of Longchamps the duty of commemorating the miracles of the princess Isabel by services on the last day of August of each year. This became a great fête day, attracting multitudes from Paris. On Mt. Valerian there dwelt many hermits and other religious persons. These also attracted crowds of people at all times who made Longchamps their meeting-place, going to and fro. Centuries before the revolution of 1789 Longchamps was such a resort for the people of Paris that a French writer alludes to it as "a fluxion of these people." In the reign of Louis XV. three days of holy-week were devoted by the rank and wealth of the court to pilgrimages to the abbaye of Longchamps. A French writer of that time remarks of these occasions: "Pleasures and devotions first marched abreast, but pleasures soon stepped to the front." Religious singing became the rage, because it brought together the *beau monde* of Paris, and the beautiful "recluses" of the convent. Crowds went from Paris to hear the delightful singing there, and the training of the church was a school for the opera. Longchamps became the frequent theater of tumultuous crowds. Before the revolution archbishop Beaumont of Paris ordered the church closed on the days when those pleasures of the holy-week had become a scandal to the church; but the gay people from the city found means to continue their reunions elsewhere adjacent to the convent walls.

Such was the character and the popularity of this place of resort when the ordinances of the revolution in 1789-90 confiscated the lands of such religious organizations to the state. The Longchamps properties were sold to speculators. The hammer of innovation destroyed all its monuments of that convent era, of which it had become the most conspicuous shame. There now remain no vestiges of all that history tells us of them. But the same gay throngs that for four hundred years have surged out from Paris to these fields now walk and ride to the race-grounds and park that have taken the place of the buildings and garden of the abbey of Longchamps.

LONGET, FRANCOIS ACHILLE, 1811-71; b. Bordeaux, France; studied medicine and surgery in Paris; became member of the academy of medicine in 1844, and since, professor of the faculty of medicine, member of *l'Institut*, and imperial surgeon of the *legion d'honneur*. As early as 1836 he became eminent for his investigations, and later, pre-eminent for his studies of the spinal marrow and its functions, the action of electricity on the nervous system, the mixed nerves, the classification of brain nerves, the laws governing the excitability of nerves, and their connection with the muscular fibers. He is credited with very interesting explanations of the action of the lungs, the voice, the saliva, and the effects upon the nervous system of the exhalation of sulphuric ether. His published works embrace treatises, reports, and essays on all the above, and many other subjects pertaining to medicine and physiology.

LONGEVITY, prolonged life in plants and animals. This article refers exclusively to human longevity. The subject has attracted attention in all ages, but especially since the more recent and systematic study of biology. It may be viewed with reference to individuals, to families, and to nations. There have been many noted examples of great prolongation of life in individuals, in some of which the history of their progenitors is not given, but enough cases have been observed in which long-lived people have descended from a long-lived stock to show that longevity is a hereditary transmission; therefore, individual and family longevity are intimately connected. Attention to hygienic

laws to a greater degree than that which has been observed by parents, will, as a rule, prolong the life of an individual beyond that of the parents, but it will probably not materially alter the average number of years to which certain families attain. So also of nations, a certain number of generations is a measure of the longest span of life of the individual. The extreme limit seems to be five generations: that is to say, those who attain the greatest age in a nation or race of men may live to see the fifth generation of their descendants. Among the Indo-European races this, as a rule, requires that the life of the individual shall be prolonged to about 120 years. In China, men of less than 100 years of age often live to see their grandchildren to the fifth generation, and all races other than the Caucasian come to maturity sooner than that race, one generation following another more frequently; and it may be taken as a rule that the number of generations and fractions of generations of a people is the measure of the span of life among them. Some remarkable instances of longevity have been observed among African races, and there are many well-authenticated cases where individuals have lived considerably beyond 100 years, but none of them reach the extreme age of the Caucasian. A person who exceeds the age of three-score and ten years may be said to have arrived at a period of longevity. The average duration of life in Europe is from 26 to 33 years, but it is found to be greater among those who are in comfortable circumstances than among the poor. The cause of this is a question about which there is a difference of opinion. It is held by some that the mode of living among the well-to-do increases the physical powers, thus tending to prolong existence. Others, again, although admitting that good living, when not luxurious, tends to prolong life, maintain that the poorer classes are naturally shorter-lived, and are poor because of inherited qualities of mind and disposition which tend to place them in subordinate circumstances. The truth probably is between these two opinions. Many people, doubtless, are poor from natural improvidence and weakness of body and of character, and they are among the short-lived. Others are poor from various circumstances; from want of desire for riches, or from a natural self-reliance, or absence of fear for the future as regards temporal things, and some of these latter often furnish instances of great longevity. There are certain classes of persons who, by fortuitous circumstances, such as happy intermarriage with those living lives calculated to strengthen their constitutions, have produced a tendency to longevity, and who transmit this tendency to their descendants, but they are not exclusively found in any one social condition.

The chief physical characteristics of longevity may be enumerated as follows: 1. Medium weight and medium height, although this is subject to many exceptions. The limbs, especially the lower, rather less than half the length of the whole stature, which is the standard in art, and was instituted by the Greek sculptors. 2. Harmonious proportions (except as to the art standard of stature), rounded and firm joints and limbs, regular features, and a calm expression of countenance, a full chest and a head and neck so placed as to give a graceful and easy bearing. 3. The chin and lower jaw, when full and well formed, are signs of longevity, but not without many exceptions, for prolonged life is often possessed by those who have retreating chins and rather defective lower jaws. The indication, however, holds good, as a rule, and whatever elements of longevity such persons have are probably inherited from ancestors who had well formed lower jaws. 4. The mouth is a feature of considerable importance as an indication of longevity. A firm, rather thin lip, at least one that is not pouting, or has not a wide red border, is a sign of firmness of fiber and vigor, especially of endurance. But there are many exceptions; and when a person has other strong characteristics of longevity this sign should not have too much weight. An incurved or inverted rather than an everted upper lip, and having a firm expression, is not an unfavorable sign, even though rather thick. 5. A rather prominent and well developed nose, in harmony with a capacious respiratory apparatus and a well-developed sensory organization, is a feature entitled to consideration; but it also has many exceptions, probably from inherited peculiarities on one side of the family, which, however, do not materially diminish the tendency to longevity in the majority of such inheritors. 6. The ear, perhaps, furnishes the most important indications of longevity, and in its form, development, and position there may be traced more hereditary characteristics, as well as evidences of individual constitutional strength, than in any other feature. A small, ill-shaped ear is very rarely carried by a long-lived person, if ever; never, if its center is placed much above the level of the wings of the nose. If such an ear is also thin and has a weak look, its possessor certainly has a defective constitution, with strong consumptive tendencies. A full, moderately fleshy ear, called a pulpy ear by artists, is a sign of a vigorous constitution, and also of longevity if placed rather low down and at a good distance from the eye, thus giving room for the various cerebral ganglia which are situated at the base of the brain and have much to do with the harmonizing of physiological functions. If the ear is rather large, and with a well-developed lobe, held firmly to the angle of the jaw, the indications of vigor and long life are increased. Other indications, those of intellectuality, character, etc., are furnished by the formation and size of the ear, but they do not particularly concern the subject of this article. In regard to the complexion, long-lived people vary from light to dark, but the skin is usually smooth and healthy.

Notwithstanding that an inherited strong constitution is the foundation of a long

life, exposure to inclement weather, or an unhealthful climate, or various hardships and privations, with violations of hygienic laws, may produce decay of the physical powers and degeneracy in two or three generations the strong tendency to the recurrence of the original type of constitution will, under favorable circumstances, cause a regeneration of stock. It is also probable that continued breeding under favorable circumstances of stock not in the highest physical condition, will tend to its improvement. To what degree improvement of the human race might be carried, it is impossible to say with confidence. We do not know our physical history with sufficient exactness to venture far upon such speculations, but, if we take the opinions of a majority of the scientific world of the present day, the race has been constantly improving—in fact, has been developing from some form much inferior. There are many, however, who believe that the Bible account, though perhaps too fragmentary for a scientific basis, is a revelation, and that we were created physically perfect. Accepting this view, to what age did our earliest progenitors survive? This is a question that has not been settled, even by theologians, and therefore will not be discussed here; but, if greater than at present, it might perhaps be recovered by an observance of mental, moral, and physical laws, as tending to the recovery of the normal type of constitution. It is possible that, under any view of the creation of man, human life might be made to increase in length of days, although history shows that its duration has varied but little in 4,000 years.

Moderation and regularity in eating, drinking, and sleeping are conducive to longevity, and those who observe proper habits may accomplish immense labors with no apparent injury to themselves. Scientific studies and philosophical contemplation, if not pursued with too much ardor, do not tend to shorten life. Clergymen are said to be the longest-lived, as a class, of any in England. Poets, as a rule, are not as long-lived as philosophers, although Sophocles is said to have lived 90 years. Goethe was in his 84th year when he died, and Wordsworth was 80; but these two poets were also philosophers, and spent much time in calm thought. Of the old philosophers, Zeno died at 98, Demosthenes at 99, Isocrates at 98, while Hippocrates, the father of medicine, lived to upwards of 100. Many medical men have lived to an advanced age; but it appears from statistics that physicians are, as a class, shorter-lived than members of other professions. Moses lived to the age of 120, and Joshua to that of 110, and their lives were lives of great activity. As an instance of hereditary longevity, may be mentioned that of Abraham, who lived to 175, Isaac to 180, Jacob to 147, and Joseph to 110. Some physiologists do not place reliance on records of longevity much beyond 100 years. Many instances, however, seem to be too well attested to admit of much doubt that individuals have lived to more than 140 years of age, and one of the cases given in some of the records which follow, that of Henry Jenkins, who is said to have lived to the age of 169, rests on evidence which many intelligent men do not feel justified in rejecting. The cases of the three Hungarians may be regarded as doubtful, but they are accepted by the author of the article "Age" in the *American Cyclopædia*, and they are given here, at all events, as interesting records. It must be admitted that there are no valid reasons for denying that life may be prolonged to the extent there claimed. Much of the evidence regarding the age to which individuals attain would, in most instances, be deemed insufficient in a court of law, and, if absolute proof be required, the collection of instances of great age would be small.

Buffon says that every animal lives six or seven times as long as the period of its growth, and Flourens remarks that this is very near the truth, he placing the relative terms of growth and perfected growth as 1 to 5. Both Buffon and Haller placed the normal term of life between 90 and 100 years. They afterwards, by the collection of instances, placed its extreme limit at a little less than two centuries, and Flourens adopts the idea that extraordinary extension of the term of life may go on to one-half more than the ordinary term. The late sir Henry Holland believed that there was sufficient proof of the frequent prolongation of human life to 110 and 140 years; but a recent writer, Mr. Thoms, maintains that any evidence that any human being ever attained the age, not of 140, but of 110 years, will be found upon examination to be untrustworthy, and there are others who to a certain extent share this opinion.

In a work called *The Code of Health and Longevity*, by sir John Sinclair (6th ed., Lond., 1844), and which contains much interesting matter, there is the following: "In a Dutch dictionary entitled *Het Algemeen Woonderboek*, there is an account of which the following is a translation. Petratsch (Peter) Czartan was born in 1537 at Kofrok, a village 4 m. from Temeswaer, in Hungary. When the Turks took Temeswaer from the Christians, he kept his father's cattle. A few days before his death he walked with the assistance of a stick to Kofrok. He had but little sight, and his beard was of a greenish white color, like moldy bread, and but few of his teeth remained. His son, 97 years of age, was born of his father's third wife. Being a Greek in religion, the old man was a strict observer of fasts, and never used any food but milk and cakes. He had descendants in the fifth generation, with whom he sometimes sported, carrying them in his arms. He died in 1724, at the age of 184 years. Count Wallis had a portrait taken of this old man when he fell in with him previous to his death. The Dutch envoy, then at Vienna, transmitted this account to the states-general." There is a picture of the old man in sir John's book, probably a copy

of the portrait of him which count Wallis had taken. The same book also contains portraits of an old married pair, also natives of Hungary. The following is a translation of the inscription on the picture: "John Rovin in the 172d year of his age, and Sarah, his wife, in the 164th year of her age. They have been married 147 years, and both born and died at Stadova, in the directory of Casanseber, in Temeswaer; their children, two sons and two daughters, are yet alive. The youngest son is 116 years of age, and has two great grandsons, the one in the 35th and the other in the 27th year of his age." Henry Jenkins, of Elberton, in Yorkshire, Eng., lived to the age of 169 years. At the age of between 10 and 12 he was sent to North Allerton with a horse load of arrows previous to the battle of Flodden, which was fought Sept. 9, 1513, and as he died Dec. 8, 1670, he must have been of the age reputed. "He had often been sworn in chancery and in the courts to above 140 years of memory." Sir John further remarks, "Little is known of his mode of life, excepting that towards the last century of it he was a fisherman, and not only used to wade the streams, but actually swam rivers after he was past the age of 100 years." Thomas Parr was born in the parish of Alherbury, in Shropshire, in 1483, in the reign of Edward IV., and died in London in 1635. "He lived in the reign of ten kings and queens, and was buried in Westminster abbey." He is said to have been a man of very different stamina from the rest of mankind, for a person who had seen him describes him thus: "From head to heel of his body he had, all over, a quick-set, thick-set, nat'ral hairy cover" (Sinclair). Sir John's book also contains portraits of the countess of Desmond, as well as of Jenkins and Parr. The countess of Desmond lived to the age of 140 years. Sir John says "she was a daughter of the Fitzgeralds of Drummond, in the county of Waterford, and in the reign of Edward IV. married James, 14th earl of Desmond." After his death, sir Walter Raleigh says, she held her jointure from all the earls of Desmond during her life. It is also said, on the authority of lord Bacon, that she twice renewed her teeth. In Bailey's *Records of Longevity* (Lond. 1747), there are, among others, the following records: "Thomas Hill, of Flitton, Staffordshire, died in 1601, aged 128. He was head steward to three successive earls of Kent. On the floor of the chancel, near the altar, is an effigy in brass of this patriarch. The rev. Mr. Braithwaite, of Carlisle, died in 1754, aged 110 years. He had been in the cathedral 102 years, having commenced as a singing boy in 1652, when eight years old." In a work entitled *Human Longevity*, by James Easton, published at Salisbury, Eng., in 1799, there are recorded the ages of 1712 persons who were said to have lived upwards of 100 years. Easton quotes a table from Hufeland, in which that author says that of 100 human beings who are born, 50 die before the 10th year, 20 between the 10th and 20th, 10 between the 20th and 30th, 6 between the 30th and 40th, 5 between the 40th and 50th, and 3 between the 50th and 60th, leaving only 6 to live above the 60th year. He says, "Haller, who collected the greatest number of instances respecting the age of man, found the relative duration of life to be in the following proportion: Of men who lived from 100 to 110 years, the instances have been 1000; from 110 to 120 there have been 60; from 120 to 130 there have been 29; from 130 to 140 there have been 15; from 140 to 150 there have been 6; and as high as 169, there has been 1 instance. But as this volume probably contains a much more extensive collection of long livers than any preceding work on the subject, I cannot deny myself the satisfaction of compiling from it the following table, similar to Haller's. Of males and females who lived from 100 to 110 years, both inclusive, the instances have been 1310; from 110 to 120 there have been 277; from 120 to 130 there have been 84; from 130 to 140 there have been 26; from 140 to 150 there have been 7; from 150 to 160 there have been 3; from 160 to 170 there have been 2; and from 170 to 185 there have been 3 instances = 1712." The following are among the names and ages mentioned by Easton: St. Patrick, 122; Attila, 124; Lywarch Hên, 150; St. Coengene, commonly called St. Keiven, the founder, bishop, and abbot of Grandalock, or the seven churches in Wicklow, Ireland, 120; Piastus, king of Poland, 120; Lewis Cornaro, 104; St. Anthony the great, of Coma, in Egypt, 105; Jane Scrimshaw of the parish of Bow, 127; Alexander Stephens of Banffshire, 108; Donald Cameron of Kinnichlabar in Rannach, Scotland, 130, and who married at the age of 100; Mrs. Carter, of Waltham abbey, Essex, 101, who could walk five or six miles a day with ease till within a few months of her death; Dr. William Broughbridge of Charles Street, Westminster, formerly one of the masters of the Charter house school, 112; Mrs. Keith, of Newnham, Gloucestershire, "who lived moderately, and retained her senses till within fourteen days of her death, at 133 years, and who left three daughters, the eldest aged 111, the second 110, and the youngest 109; Peter McDonald lived to the age of 109 (his father died at 116, and his grandfather at 107 years); Thomas Winslow, aged 146, of the county of Tipperary, Ireland, a colonel in the army and had held the rank of captain in the reign of Charles I.; he also accompanied Oliver Cromwell into Ireland; Mr. Dobson, of Hatfield, a farmer, who by much exercise and temperate living prolonged his life to the age of 139 years: ninety-one children and grandchildren attended his funeral; Eleanor Spicer, of Accomac, Virginia, lived to the age of 121 and worked at sewing till within six months of her death; Andrew Vidal, a native of Brazil, lived to the age of 124; he had 30 sons and 5 daughters, and in 1773 was living in the same house with his children and grandchildren, who numbered 149; John Weeks, of New London, Conn., died at the age of 114; married his tenth wife when he was 106 years old, she being only 16; it is said

that his hair and teeth were partially renewed." Easton also includes the names taken from Sinclair's book above mentioned. There died at Scottsville, Monroe county, N. Y., in the autumn of 1878, Mrs. Melissa Ganier, whose age is probably correctly given. She was married in 1789 at the age of 14, and removed in 1801 to the place where she died. She was, consequently, about 104 years old. Her husband survived her, at the age of 107. They had 95 descendants. At Norristown, Penn., Dec. 28, 1878, Mrs. Elizabeth Thomas died in her 102d year. At West Gloucester, Essex county, Mass., Oct. 26, 1878, Miss Mchitable Haskell died at the age of 89 years. She was the last of nine children who lived beyond fourscore years, one sister attaining the age of 96. The father, grandfather, great-grandfather and great-great-grandfather, all lived beyond 80 years. The influences affecting the longevity of men appear to have been so balanced that the average age of the human race has remained about the same for more than 4,000 years. But in this balancing process there is a depressing and life-shortening influence which necessarily reduces the natural average. It must, therefore, be concluded that a removal of all physically depressing and noxious influences would increase the longevity of the human race. The degenerating influences appear to exist in the cities, chiefly in consequence of the production of poisonous malaria and of infectious diseases, and if it were not for the constant regeneration of the population of cities by accessions from the country the age to which men usually live would be soon greatly shortened and there would be degeneration of race unless considerable reforms were made in sanitary affairs. The registrar-general of Great Britain in a recent report, in alluding to the sanitary condition of that country, says, "Within the shores of these islands 28,000,000 of people dwell who have not only supplied her (England's) armies and set her fleets in motion, but have manufactured innumerable products and are employed in the investigation of scientific truths and the creation of works of inestimable value to the human race. These people do not live out half their days. A hundred and forty thousand of them die every year unnatural deaths; two hundred and eighty thousand are constantly suffering from diseases which may be prevented. Their strength is impaired in a thousand ways; their affections and intellects are disturbed, deranged, and dimmed. Who will deliver the nation from these terrible enemies? Who will confer on the inhabitants of the United Kingdom the blessings of health and long life?" We will conclude this article with a condensed statement of the opinions of Dr. Benjamin Rush (q.v.), surgeon-general of the American army of the revolution, contained in his *Medical Inquiries and Observations*, several editions of which were published at the commencement of this century. He reviews the circumstances which favor longevity, the condition of body and mind which attends it, and the peculiar diseases of old age, and their remedies. The most important circumstance is descent from long-lived ancestors. He says, "I have not found a single instance of a person who has lived to be 80 years old in whom this was not the case. In some instances I have found the descent was only from one, but in general it was from both parents. Dr. Franklin, who died in his 84th year, was descended from long-lived parents. His father died at 89 and his mother at 87. His father had seventeen children by two wives." Intemperance in eating, Dr. Rush found in his experience, was even more prejudicial to longevity than intemperance in drinking, for he met only one man 84 years of age who had been intemperate in eating, but four or five who had been intemperate in the use of ardent spirits. He considers that literary pursuits are favorable to long life. "Business, politics, and religion, which are the objects of attention of men of all classes, impart a vigor to the understanding which by being conveyed to every part of the body tends to produce health and long life." In regard to the married state he met with only one person over 80 years of age who had never been married. He makes particular mention of a woman, a native of Herefordshire in England, who was in the 100th year of her age, and who had born a child at 60. She had suckled successive children at the same time. Dr. Rush remarked that immigrants from Europe often acquired fresh vigor from change of climate and occupation, and probably a prolongation of life. His observations did not indicate that acute or chronic diseases shortened life, and mentions the fact that "Dr. Franklin had two successive vomicas (cavities containing purulent matter) in his lungs before he was 40 years old." It is not improbable, however, that his lung difficulty did shorten his life. He met with one man 86 years old who had suffered all his life from syncope, but he met with but one person beyond the age of 80 who had ever had a disease of the stomach. Mr. John Strangeways Hutton, who died in Philadelphia, in the 109th year of his age, informed Dr. Rush that he had never vomited in his life. "He was born," says Dr. Rush, "in New York city in the year 1664. His grandfather lived to be 101, but was unable to walk for 30 years before he died, from excessive corpulence. His mother died at 91. He had a fixed dislike of ardent spirits of all kinds; his appetite was good, and he ate plentifully during the last years of his life, but rarely drinking between meals. He married twice, having eight children by his first, and seventeen by his second wife. He was about 5 ft. 9 in. in stature, slender, and carried an erect head to the last years of his life. He says, "I have not found the loss of teeth to affect the duration of life so much as might be expected. Edward Drinker, who lived to be 103 years old, lost his teeth thirty years before he died, from drawing the hot smoke of tobacco into his mouth through a short pipe." He makes the observation that "more women live to be old than men, but more men live to be *very* old than women. In regard to the characteristics of

the body and mind of old people he mentions their great sensitiveness to cold, and says, "I met with an old woman who slept continually under three blankets and a coverlet during the hottest summer months. The servant of prince de Beaufremont, who came from Mont Jura to Paris at the age of 121 to pay his respects to the first national assembly of France, shivered with cold in the middle of the dog-days when he was not near a good fire. The late Dr. Chovet, of this city (Philadelphia), who lived to be 85, slept in a baize night-gown under eight blankets and a coverlet, in a stove room many years before he died." He remarks that death from old age is the effect of a gradual palsy, showing itself first in the eyes and ears, then in other parts of the body, reaching the brain the last.

LONGFELLOW, HENRY WADSWORTH (*ante*), was the son of Stephen, an eminent lawyer of Portland, Me. While a student in Bowdoin college he wrote some of the best known of his earlier poems, among them the *Hymn of the Moravian Nuns*; the *Spirit of Poetry*; *Woods in Winter*, and *Sunrise on the Hills*. He held his professorship at Harvard 17 years, resigning in 1854, but continuing to reside at Cambridge, in the house occupied by Washington when the revolutionary army was encamped in that neighborhood. He spent the summer of 1842 at Boppard on the Rhine. In 1868-69 he revisited Europe, and was everywhere the recipient of high honors, especially in England, where his writings are exceedingly popular. Men of the highest literary and social distinction sought his acquaintance and were charmed by his dignified, kindly, and unassuming deportment. The general verdict upon his poetry is that, while it fails to represent the deepest passions of human nature, it is always kindled by the broadest sympathies, and marked by a delicate appreciation of all that is beautiful in nature and noble in humanity. Keenly sensitive to the imperfections and misdoings of men, he is never censorious, but always gentle and persuasive, appealing to the sympathies and motives which are common to people of every race, country, and clime. He exhibits the fruits of a broad culture, not in strained allusions to things beyond the reach of common readers, but in the clearness and simplicity with which he interprets to them the noblest thoughts of the noblest men of every age and country. Among his latest works are *Poems of Places*, selected from a great number of authors and filling 31 small volumes; and *Ultima Thule*, a volume of original poems.

LONGFELLOW, SAMUEL, b. Portland, Me., 1819; brother of Henry Wadsworth; graduated at Harvard college in 1839, and at the divinity school in 1846; from 1853 to 1860 was pastor of the Second Unitarian church in Brooklyn, resigning in order to go to Europe. After his return to America he resided many years at Cambridge, Mass., preaching frequently in Unitarian pulpits, but for most of the time devoted chiefly to literary pursuits. In 1878 he became pastor of the Unitarian church in Germantown, Penn., where he remains. He belongs to what is called the "left wing" of the Unitarian denomination, the section holding views most variant from the evangelical. In 1847, in association with the rev. Samuel Johnson and the rev. Samuel Osgood, he compiled *A Book of Hymns*, jocularly called the "Sam Book," but very highly esteemed both upon literary and religious grounds, and which was afterwards revised and published with the title of *Hymns of the Spirit*. In 1859 he published a book of *Hymns and Tunes for Congregational Use*. He has written a number of hymns marked by devoutness of feeling as well as a cultivated literary taste, and some of his fugitive poems are very highly esteemed. His published sermons and essays are remarkable for elevation of tone, for clearness of insight, and purity of style.

LON'GHI, GIUSEPPE, 1766-1831; b. at Monza, near Milan; studied at the school of engraving there, became professor in 1798, and subsequently for several years the head of the institution. In 1801, by invitation of Bonaparte, he took part in the Cisalpine council at Lyons, going afterwards to Paris. His chief works are the "Vision of Ezekiel," after Raphael; the "Magdalen" of Correggio; the "Madonna del lago," after Leonardo da Vinci; and "Galatea," after Albano. He engraved many fine heads, among them those of Washington, Michael Angelo, and Napoleon. The plates known as the "Facti di Napoleone il Grande" are among his masterpieces. His latest biography was published by Baretta in 1837. Died at Milan.

LONG ISLAND (*ante*), an island belonging to the state of New York, embracing the three counties of Kings, Queens, and Suffolk. It lies between 40° 34' and 41° 10' n. lat., and between 71° 51' and 74° 4' w. longitude. It is bounded s. and e. by the Atlantic ocean, n. by Long Island sound, and w. by the bay of New York and the East river. Its length is about 125 m., its average width 14 m.; area, 927,900 acres; pop. '80, 744,022. The coast is indented with many bays and inlets, abounding with shell and other fish. One of these is Peconic bay, 30 m. long, which divides the eastern end of the island into two parts or projections, the one on the n. side terminating at Oyster Pond point, that on the s. terminating at Montauk point, 20 m. farther east. On the s. side of the island is a bay nearly 100 m. long and from 2 to 5 m. broad, formed by the Great South beach, a strip of white sand from one-fourth of a mile to a mile in width, with occasional openings to the ocean. Near the western end of the island are Jamaica, Hempstead, Oyster, and Huntington bays. Shelter, Gardiner's, Fisher's and Plumb islands, in the adjacent waters, are attached politically to Long Island. The coasts, bordering as they do on the track of an immense ocean commerce, are furnished not only with a large number of lighthouses, but with life-saving stations, provided with every means of rendering aid

to vessels in distress. The surface, though presenting considerable variety, is marked by no great elevations. A range of hills extends, with frequent interruptions, from the northern boundary of New Utrecht in the w. almost to the eastern extremity of the island on the n. side of Peconic bay. These hills are considerably nearer to the northern than to the southern margin of the island. North of them the surface is uneven and rough, while on the s. it has a gradual inclination toward the sea, and is broken here and there by wide sandy plains producing only coarse grass and stunted shrubs. Some of these plains, by the application of manures, have of late years been brought under cultivation. A considerable portion of the island is in forest, from which wild game has not yet been wholly exterminated. There are numerous springs and small streams, and many ponds, some of them quite large, while swamps and marshes abound. The largest stream is the Peconic, which, after a course of 15 m., empties into the bay of the same name. It furnishes numerous mill seats. Of salt marsh the island is computed to contain more than 100 sq.m. With the exception of the sandy plains above mentioned the soil is for the most part fertile, in some sections peculiarly rich. Much of it is in a high state of cultivation, being devoted to the production of vegetables for the Brooklyn and New York markets. This is especially true of the two westernmost counties, Kings and Queens. The climate, on account of the influence of the sea, is milder and more equable than the same latitude in the interior, the mercury seldom falling below zero or rising above 90°, the average temperature being about 51°. The highest elevations on the island are Hempstead Harbor hill at Roslyn, and West hill in Suffolk co., both which are 384 ft. above the sea. On the s. side, Coney island, Rockaway, Quogue, Babylon, Fire island, Southampton, Easthampton, and Montauk point are watering-places, several of which are much frequented in the hot season. Coney island especially, which is but a few miles from New York and Brooklyn, and easily accessible by boat or rail, has within a few years become a place of resort for vast multitudes of people, for whose accommodation immense hotels have been erected. The Long Island railroad passes through nearly the entire length of the island, from Hunter's Point at the western to Greenport near the eastern extremity, and connects by branches with various places at a greater or less distance from its main track; while there are numerous other and shorter roads, connecting many towns with Brooklyn and New York. Among these are the North Shore, Southern, Flushing and Central, Flushing and North Side, Smithtown and Port Jefferson, New York and Rockaway, Newtown and Flushing, Bay Ridge, Hempstead and Jerusalem, Brooklyn and Jamaica, Brooklyn and Coney Island, etc. Steamboats also ply regularly between New York and the principal towns on the n. side.

The principal cities and towns on the island are Brooklyn, Long Island City, Garden City, Flatbush, New Lots, Flushing, Hempstead, Jamaica, Oyster Bay, North Hempstead, Huntington, Brookhaven, Riverhead, Southampton, and Southold. Brooklyn, at the extreme western extremity of the island, is the third city of the United States in population. It is connected with different parts of New York by eight or ten ferries, and will soon be connected therewith by a magnificent wire suspension bridge, crossing at such a height that only the largest vessels will have to lower their topmost-masts in passing under it. Garden City was founded by the late Alexander T. Stewart, a wealthy merchant of New York, on land formerly known as Hempstead plains, which, since the first discovery of the island had been regarded as almost worthless. Mr. Stewart purchased a tract of 12,000 acres, on a portion of which Garden City has been built, while other portions have been brought under successful cultivation. The city is as yet in an inchoate state; though it contains many fine buildings and a considerable population. One of the objects of the founder was to furnish economical and healthful homes for families of small means, whose heads might be employed in New York. An immense and costly cathedral, for the uses of the Protestant Episcopal church, is nearly completed.

Long island when first discovered was the abode of 13 tribes of Indians, of which the only remnants are some 200 Shinnecooks, a mixed breed of Indians and negroes in Southampton, and a few families of Montauks. The island was included in the grant made to the Plymouth colony by James I. in 1620. In 1625 the first settlement was made by some French Protestants under Dutch protection. In 1636 the Dutch made several settlements at the western end, near New York, but the larger portion of the island, and especially its eastern section, was settled by colonists from Connecticut and other parts of New England. The island was called "Lange Islandt" by the Dutch; in 1693 the English changed it by law to the "island of Nassau"—a name, however, which never came into popular use. In 1636 Jaques Bentyn and Adrianse Bennet purchased of the Indians 930 acres of land within the present boundaries of the city of Brooklyn. Mr. Bennet erected here the first house ever built upon the island, and which was burned by the Indians in 1643. In the troubles which preceded the revolution the people of Long Island were intensely patriotic, but the reverses of the American arms which placed the island in the power of the British during the war made it impossible for them to do much for the cause of independence. One of the earliest battles of the war was fought in Brooklyn, Aug. 26-28, 1776, when the Americans occupying the defensive under gen. Putnam were overcome by a greatly superior British force and compelled to retreat in boats across the East river under cover of a thick fog. The patriotic

portion of the inhabitants, left thus under British control, endured many privations and not a little persecution during the whole period of the war.

LONG ISLAND CITY, a city in Queens co., N. Y., at the n.w. extremity of Long Island; formed from a portion of the town of Newtown, and incorporated in 1870; pop. 74 about 16,000. It extends 3 m. e. and w., and 5 m. n. and s., and has a water front of 10 m. along Newtown creek, which separates it from Brooklyn, and thence n. along East river to Bowery bay. It is divided into five wards and has 3 post-offices, viz. Astoria, Ravenswood, and Long Island City. The s.w. portion is called Hunter's Point, this being the w. terminus of the Long Island, Flushing, and other railroads. The n. portion is the most elevated, and in Astoria and Ravenswood are many fine residences and beautiful drives. The streets and avenues are wide, and provision is made for three public parks. Hunter's Point is connected with New York city by 2 ferries, Astoria by one and by the Harlem boats. Several lines of horse-railroad connect the city with Brooklyn. Hunter's Point is a great depot for the storage and shipment of petroleum. It contains extensive lumber-yards, several oil refineries, granite works, a marine railway, and manufactures of chemicals, cabinet-ware, hammers, boilers, refrigerators, steam-engines, asbestos roofing, mattresses, etc. Astoria has manufactures of pianofortes, carpets, carriages, jewelry, etc. The city has 14 churches, a fine court-house, excellent school-buildings, and 1 daily and 5 weekly newspapers. The courts of the county of Queens are held here, though the various county offices remain at Jamaica, the former capital.

LONG ISLAND SOUND (*ante*), an arm of the Atlantic ocean, lying between New York and Connecticut on the n. and Long Island on the s.; about 110 m. in length and from 2 to 25 m. in breadth. Its depth is generally about 70 ft., scarcely anywhere exceeding 120 ft. It is connected with the ocean on the e. by a passage called the Race, and on the w. by the East river, New York bay, and the Narrows. It has many harbors moderately good, and one or two excellent. The Connecticut shore is rocky and reefs impede navigation for a distance from the land; the Long Island shore is less broken. The principal rivers flowing into the sound are the Housatonic, Connecticut, and Thames. The sound is the route of an extensive commerce between New York and the principal cities and towns of New England, and is navigated by many lines of steamers and sailing vessels. The narrow and rock-bound strait called "Hell-gate," at the western extremity of the sound, has made this route practically unavailable hitherto for vessels approaching New York from the ocean, but measures are in progress for widening the channel by the removal of the rocks, and, when this work is fully accomplished, a new and highly advantageous channel for ocean commerce will be opened.

LONG LAKE, one of the series of Adirondack lakes, situated in the n.e. part of Hamilton co.; 18 m. in length, and about 3 m. wide. It is remarkable for the beauty of the surrounding scenery, having Buck mountain on the right and the Blueberry mountains on the left, as one enters by way of the Raquette river. From this point a fine view is obtained of Mt. Seward, 4,348 ft. in height, from which the lake is distant 10 miles. The lake itself is at an elevation 1575 ft. above the level of the sea. Its position and its length make it an important part of the interesting and extensive line of travel through successive lakes and streams in the Adirondack region.

LONGLAND, ROBERT. See **LANGLANDE**.

LONGLEY, CHARLES THOMAS, D.D., 1794-1868; b. in Westmeathshire, England; educated at Westminster school and Christ-church college, Oxford, where he ranked as first-class scholar in classics. After his graduation he continued some time at the university as college tutor, censor, and public examiner. He became perpetual curate of Cowley in 1823; rector of West Tytherly, 1827; head-master of Harrow school, 1829; bishop of Ripon, 1836; of Durham, 1856; archbishop of York, 1860; and of Canterbury, 1862. In this last position, as primate of all England, he continued until his death. The year before he died he presided at the sessions of the Pan-Anglican synod, composed of all the bishops of the church of England and of the churches in communion with it. By some persons archbishop Longley has been described as deficient in firmness and other positive elements of character required especially in his most exalted position, which he held at a difficult time. In person he was amiable, dignified, courteous, and devout. Before his death he referred to words which had been used by bishop Hooker, expressive of his sense of guilt and of his reliance on the blood of Christ to cleanse him from sin, as containing the faith in which he wished to die.

LONGMAN, THOMAS, 1699-1755; b. England; having served an apprenticeship to John Osborne, a bookseller of London, was taken into partnership by him in 1725, in Paternoster row, establishing a business which has since been continued by his successors, on the same site under various firm names—now Longmans, Green, Reader, & Dyer. The style of the firm at one time was Messrs. Longman, Brown, Green, Hurst, Rees, Orme & Longmans. In 1728 he was concerned in publishing, by subscription, the *Cyclopædia* of Ephraim Chambers in 2 large folio volumes, a second edition appearing in less than 10 years, and 5 editions in 18 years. It is, with one exception (the *Lexicon Technicum* of John Harris, 1706-10), the first English encyclopædia or general dictionary of the arts and sciences, subdivided under suitable heads and alphabetically arranged.

It subsequently formed the basis of *Rees's Cyclopædia*, 4 vols., 1781-86. He was one of six booksellers who undertook in 1747 to publish a dictionary of the English language in 2 folio vols., and employed Samuel Johnson to perform the work for the sum of 1500 guineas, out of which he paid his assistants. The dictionary was issued complete in 1755, but has been so altered by editors as scarcely to be recognized, in its present guise, as Johnson's.

LONGMAN, THOMAS, 1731-97; b. England; nephew of Thomas (1699-1755), was received into the publishing company of his uncle in 1754, and was the pioneer among exporters of books to America. In 1776 he began to publish a new edition of *Chambers's Cyclopædia*, completed in 1786, 4 vols. folio, edited by Abraham Rees, who became one of the firm, and with whom he was associated in publishing *Rees's Cyclopædia*, 1802-19, in 45 vols.

LONGMAN, THOMAS NORTON, 1770-1842; b. England; for 50 years the head of the publishing firm of Longman & Co. of Paternoster row, London, son of Thomas (1731-97), and grandnephew of the original publisher of that name. In 1792 he became a partner with his father in publishing and selling books, adding greatly to the influence and efficiency of the house as long as his connection with it lasted; admitting various partners during his long career as business manager. In the early years of the 19th c. they held the copyright of Lindley Murray's *English Grammar*, and brought out the first efforts of Coleridge, Southey, Wordsworth, and others of the lake poets. Prior to 1811 they were Thomas Moore's publishers, with the exception of his life of lord Byron. Scott's *Lay of the Last Minstrel*, and some of the *Waverley* novels were published by them; also the works of Macaulay, Herschel, etc. In 1826 they assisted in publishing the *Edinburgh Review*, and issued 133 vols. of Lardner's *Cabinet Cyclopædia*, 1829-46. He left the business to his sons Thomas and William, under the style of Longmans, Green, Reader & Dyer, who have sustained the distinguished character of the firm.—WILLIAM (d. 1877) was the author of *The History of the Life and Times of Edward III.*; *Lectures on the History of England, from the Earliest Times to the Death of King Edward II.*; and in 1856 his *Journal of Six Weeks' Adventure in Switzerland, Piedmont, and on the Italian Lakes*, was printed for private circulation. William also wrote a number of articles on entomology, attaining some distinction in that branch of study.

LONGOBARDS. See LOMBARDS and LOMBARDY, *ante*.

LONG PARLIAMENT, the name given to the parliament of England summoned by Charles I. for the purpose of granting him supplies wherewith to carry on his war against his rebellious subjects. It assembled Nov. 3, 1640, and remained in session 12 years, 5 months, and 17 days, when it was dissolved by Oliver Cromwell, April 20, 1653. This parliament impeached and executed the earl of Strafford, abolished the star chamber, and provided against its own dissolution except by its own consent. Finally it drove out of the house of commons those members who remained faithful to the king, dismissed the house of lords, and established a high court of justice, before which the king was brought to trial and sentenced to death, being beheaded on the scaffold Jan. 30, 1649. When Cromwell expelled the remains of the long parliament, he set up another assembly, of nominated members, but in the tumultuous state of public feeling, neither this nor any other of his parliamentary experiments worked satisfactorily.

LONGSTREET, AUGUSTUS BALDWIN, LL.D., 1799-1870; b. Augusta, Ga.; graduated at Yale in 1813; studied law at the celebrated school in Litchfield, Conn., and was admitted to the bar in Richmond co., Ga., in 1815; began his legal practice in Greensborough, Ga., and soon rose to eminence in his profession. In 1821 he was a member of the legislature, and in 1822 made judge of the court in the Ocmulgee circuit, but soon resigned his judicial honors, continued the practice of the law at Augusta, and established there the *Sentinel* newspaper, which in 1838 was consolidated with the *Chronicle*. In 1838 he abandoned the legal profession to become a clergyman, united himself with the Methodist conference of Georgia, and was at once assigned to a pastorate in Augusta. In 1839 he was elected president of Emory college, Oxford, Ga., holding the position until 1848, when he was made president of Centenary college, La., but was soon afterwards transferred to the university of Mississippi at Oxford. He was a member of the general conference held in the city of New York in 1844, and took a conspicuous part in the debates upon the case of bishop Andrew (involving the question of slavery), which ended in a rupture of the M. E. church into the northern and southern bodies. He was an active politician of the state rights democratic school, and a supporter of slavery. Among his writings may be mentioned *Letters from Georgia to Massachusetts*; *Letters to Clergymen of the Northern Methodist Church*; and *A Review of the Decision of the Supreme Court of the United States in the Case of McCulloch v. The State of Maryland*. His literary writings were of a humorous character, and among these were *Georgia Scenes* and *Master William Milten, or the Youth of Brilliant Talents who was Ruined by Bad Luck*. Died at Oxford, Miss.

LONGSTREET, JAMES, b. S. C., 1820; appointed to the military academy from Alabama, and after his graduation in 1842 stationed at various points on the Texan frontier until the breaking out of the Mexican war, in which he served with distinction, and was brevetted successively captain and major for gallantry at Churubusco and

Molino del Rey. After the war he continued to serve in Texas, becoming paymaster with the rank of major in 1858. On the outbreak of the rebellion he threw up his commission, and entered the confederate service. He commanded the 4th brigade of Beauregard's 1st corps, participating in the first battle of Bull Run. Promoted to a major-generalship in 1862, he distinguished himself in the campaigns under Lee against Pope, McClellan, Burnside, and Meade. After the battle of Fredericksburg, Dec. 13, 1862, he was made a lieutenant-general. He led the confederate right at Gettysburg, and being sent by Lee to the relief of Bragg, carried the day at Chickamauga, Sept. 19, 20, 1862. In Nov. of the same year he drove Burnside into Knoxville, to which he laid siege; but he was compelled to withdraw after the federal victory at Chattanooga, and join Lee in Virginia. He took a distinguished part in the operations in the Wilderness, till severely wounded, May 6, 1864, but recovered in time to resume command of his corps during the siege of Petersburg. At the close of the war, whose results he was one of the first southerners to accept, he devoted himself to the development of the southern railroad system. Afterwards separating himself from the majority of his former associates, he accepted office under a republican administration, becoming in 1869 surveyor of the port of New Orleans. In 1875 he removed to Georgia, and in 1880 was sent to Turkey as U. S. minister.

LONGSTREET, WILLIAM, 1760-1814; b. N. J. Removing to Georgia, he conceived, as soon as, or before Fulton, the idea of propelling boats by steam, and in 1790 applied to the governor of Georgia for means to carry out his plan. His application was refused, but some time afterwards he succeeded in building a small boat, which went up the Savannah river at a speed of 5 m. an hour. He was also the inventor of the "breast-roller" improvement of the cotton-gin, working by horse-power. He built two of these to run by steam at Augusta, but they were burned, as were the steam mills which he subsequently built at St. Mary's.

LONGUEVILLE, ANNE GÉNEVIÈVE DE BOURBON-CONDÉ, Duchesse de. 1619-79; b. in the donjon of Vincennes, where her father, Henry III. of Bourbon, was a prisoner. Her mother was Charlotte de Montmorency, sister of the great Condé. Before arriving at womanhood her beauty and grace, and a singularly sympathetic attraction, made her *début* at the court a social event. She was at once a pupil and a star in the choice society gathered around the marquise de Rambouillet. In 1642, at the age of 23, she became wife of the duc de Longueville, an old *roué*, who deserved and received no love from his young wife. She was strongly attached to Coligny, who was killed in a duel by the duc de Guise. In 1646, her husband being ambassador at Munster, the duchess was already so renowned for her charms that her reception was like an ovation to a monarch; but she speedily tired of the vulgar show, and returned to the more elegant and refined circles of Paris. The duc de Rochefoucauld, author of the *Maximes*, became her ardent admirer and favorite. Up to this time she had exhibited only the power to charm the most eminent men by a singular blending of languor and sweetness of manner. The internal troubles of France generated a strong animosity between the French parliament and cardinal Mazarin, regent of Louis XIV., and developed into a civil war, called the war of the Fronde. The duchess participated in the popular hatred of Mazarin and espoused the other side. From this time she appears in a *rôle* which exhibits energy, powers of intrigue, and ability of a high order. La Rochefoucauld's ascendancy over her heart and her mind awakened her to political ambition. She became the soul and bond of alliance between the various friends of the parliament, and supported the acts of the citizens of Paris, who rose against Mazarin and by barricades forced his flight from the city. With the duchesse de Bouillon installed in the Hotel de Ville, she aided to keep Paris in the possession of the insurrectionists against the regent. During this time she gave birth to a child, alleged to be a son of La Rochefoucauld. She was an active party to the treaty of peace with Mazarin in 1649. Soon after, her husband was imprisoned in Vincennes, and she flew to Normandy to effect a rising of the people against Mazarin, but failed. She then sought safety for herself and fled to Holland, and thence to the great general, Turenne, at Stenau, and soon acquired an ascendancy over him which for a time made him untrue to his government, and in the end led to the submission of the duchess to Mazarin and her return to Paris. For a short time she returned to the literary and social frivolities of the Hotel Rambouillet; but her uncle Condé and prince Conti, her brother, having again broken with the Mazarin government, she joined them at Bourges and Bordeaux, where the democratic character of the supporters of their cause was like bitter water to her taste. Her party fell apart; her brother Conti and La Rochefoucauld made their separate peace with the government; Condé fled to Spain; and the duchess returned to Paris, pardoned through the efforts of her husband in her behalf. She immediately after went into retirement from society and politics, but was soon required by her husband to join him in Normandy, where he was governor. Seeking to avoid publicity, as she then was, Mazarin was still suspicious of her, and in a conversation with the Spanish ambassador, who plead the cause of her brother Condé, he said: "You Spaniards can talk at your ease; your women only trouble themselves with affairs of love; but in France it is quite another thing, for we have three who are quite capable to govern or to overturn three kingdoms—the duchesse de Longueville, the princess Palatine, and the duchesse de Chevreuse." The death of her husband in 1663

only induced her to greater seclusion, and, though she lived in Paris, her presence was only felt in her occasional mediation to ameliorate the condition of the Protestants, and to avert the hostility of the Catholic power towards them. Her son, born in 1649, had opened a brilliant career, and had even been called to the throne of Poland, when she had news of his death in battle, June, 1672. She retired to the convent of the Carmelites, but continued the friend of the Jansenists; and when their persecution was renewed, it was under her roof that "the grand Arnoult" was successfully hid. For 25 years after this, Mme. de Longueville lived in tranquillity, rendering as obscure as possible the beauty which never left her, and performing the gracious acts of kindness which her life, in the midst of the *religieuses*, gave opportunity to do. M. Victor Cousin has written the *Memoires de Madame de Longueville*, in 3 vols., with a care that gives it one of the highest places in French biography.

LONGUS, a Greek sophist of the 4th or 5th c. of the Christian era, author of a novel, *Daphnis and Chloe*, which was translated into English by G. Thornley, London, 1657, and of which an edition appeared in Leipsic as late as 1835.

LONGVIEW, a t. in Gregg co., Texas, on the Sabine river, at the junction of the Texas and Pacific with the International and Great Northern railroad; 66 m. w. of Shreveport, La. Pop. 2,000. It has 4 churches, 1 banking-house, and a number of schools, and is a shipping-point of some importance. Cotton is the staple product of the region, and there are in the immediate vicinity over 40 saw-mills. Incorporated as a village in 1871.

LONGWORTH, NICHOLAS, 1782-1863; b. N. J.; removed to Cincinnati, where he was admitted to the bar, and practiced for a quarter of a century, when he retired, devoting himself to vine culture, in which he had become interested as early as 1828. He succeeded in producing excellent varieties of native wine. He had early invested largely in Cincinnati real estate; the rise in the value of which caused a large part of the great fortune, estimated at \$15,000,000, which he left at his death.

LONGWY, a t. in the n. of the department of Moselle, France, near the left bank of the Chiers, a tributary of the Meuse; on a railway 40 m. n.w. of Metz, and a mile from the Belgian frontier; pop. 4,197. It consists of an upper and lower town. The former is on a hill, where anciently stood a strong castle, which was destroyed and replaced in the time of Louis XIV. by a town. This is fortified, well built, has a town-hall, churches, a hospital, a military prison, and several deep wells which supply it with water. The lower town has manufactures of calico, delft-ware, porcelain, table-covers, lace, and leather. Longwy was founded in the 7th century. It has sustained many sieges. In 1792 it was taken by the Prussians under the duke of Brunswick; in 1815 by the allies under the prince of Hesse-Homburg, after a vigorous resistance. Longwy was called by Louis XIV. *The Iron Gate of France*.

LÖNNROT, ELIAS, b. Finland, 1802; at first followed his father's trade of a tailor, and was for a time apprentice to a druggist, but subsequently studied medicine, receiving the degree of M.D. in 1832. He practiced for a time, but in 1853 became professor of Finnish at the university of Helsingfors. In 1835 he published a collection of the popular songs of East Finland, under the name of *Kalevala*, and in 1842 a collection of popular proverbs.

LONOKÉ, a co. in e. central Arkansas, formed in 1870 from portions of Prairie and Pulaski counties, and bounded n. by Cypress bayou. It is traversed by the St. Louis, Iron Mountain and Southern, and the Memphis and Little Rock railroads. The soil is fertile; much of the surface is in forest. Pop. '80, 12,147. Capital, Lonoké.

LOOMIS, ELIAS, LL.D., b. in Connecticut in 1811, educated at Yale college, graduating in 1830; was tutor there for three years, 1833-36; spent the next year in scientific investigation in Paris, where he made a careful study of astronomy, meteorology, and higher mathematics; on his return was appointed professor of natural philosophy in the Western Reserve college, Ohio; from 1844 to 1860 held similar positions in Columbia college and the University of New York, and in the latter year returned to New Haven, where he has since resided, holding the professorship of natural philosophy formerly occupied by prof. Olmsted, in Yale, and pursuing his investigations in scientific and mathematical branches. He has published—besides many papers in the *American Journal of Science*, memoirs of his researches, in the *Transactions of the American Philosophical Society*, and other miscellaneous writings—a very complete set of text-books on mathematics, including treatises on arithmetic, algebra, elements of geometry and conic sections, analytical geometry and calculus, plane and spherical trigonometry, and tables of logarithms; also, a treatise on astronomy and one on meteorology. All of these are in constant use in schools and colleges throughout the country, and are marked by the accuracy and precision which are characteristic of the author personally. He has also published a book of family genealogy, *The Descendants of Joseph Loomis* (1870). Both as an instructor and writer, prof. Loomis is remarkable for his clearness and directness in expression, and his contributions to the cause of education have not been confined to formulating truths already known, as he has made many important scientific discoveries and advanced many new theories.

LOOMIS, GUSTAVUS, 1789-1872; b. at Thetford, Vt.; graduated from the U. S. military academy in 1811; entered the army as 2d lieut. of artillerists, and, after doing garrison duty in the harbor of New York for two years, was ordered to the Niagara frontier; assisted in the capture of fort Dodge, May 27, 1813, and was made prisoner at fort Niagara in the following Dec. After the war with Great Britain he served in various capacities in different parts of the country, especially in Texas and Florida, and on the western frontier against hostile Indians; was made col. of the 5th infantry in 1851; during the first years of the rebellion he was employed in court-martial and recruiting duty and as a mustering officer; retired from active service in 1863; made brig.gen. by brevet in 1865. Died at Stratford, Conn.

LO'PES, or LOPEZ, FERNÃO, b. Portugal about 1380; the oldest of the Portuguese chroniclers; was appointed chief archivist of the kingdom by Dom Joao I., and devoted his life to the collection of materials for the history of his country. He wrote a work, *Chronica del Rey Dom Joao I.*, describing the great struggle between Portugal and Castile towards the close of the 14th c., which, as a picture of manners, has been compared with that of Froissart for accurate and dramatic reality. His other works are *Chronica do Senhor Rei Dom Pedro I.*; *Chronica do Senhor Rei Dom Fernando*, both printed in vol. iv. of the *Collecção de Livros Meditos de Historia Portuguesa*. These works are regarded by eminent scholars as of great literary and critical value.

LO'PEZ, CARLOS ANTONIO, 1790-1862; b. Paraguay. After studying civil and canon law at the ecclesiastical seminary in Assuncion, he lived for a number of years in seclusion to avoid the hostility of Dr. Francia, then dictator of Paraguay. Upon Francia's death in 1840 he returned to the capital, and acted as secretary to the military junta which had become the *de facto* government of Paraguay. In 1841 he was elected consul, with a colleague; from 1844 till his death he held the office of president, to which the congress had elected him for a term of ten years from 1844, of three years from 1854, and of seven years from 1857, with power in the latter case to name his successor by will. During his administration he began the organization of an army and navy, opened Paraguay to foreign emigration and commerce, made commercial treaties with foreign powers, built a railroad, and sent many Paraguayans to Europe to be educated. His arbitrariness and hostility to foreigners gave rise to many diplomatic difficulties between Paraguay and foreign states; and England, France, the United States, and Brazil came very near declaring war against him. But his administration, on the whole, was a period of internal tranquillity and material prosperity to Paraguay, and at his death he was able to bequeath his power to his son, Francisco Solano Lopez.

LO'PEZ, FRANCISCO SOLANO, 1827-70; b. Paraguay; educated abroad, and in 1845 appointed commander-in-chief of the Paraguayan army. In 1854 he was sent to Europe on a diplomatic mission, and negotiated treaties with England, France, and Sardinia. In Europe he made the acquaintance of a Mrs. Lynch, the Irish wife of a French officer. Lopez took her to Paraguay with him, and made her his mistress. She was a woman of considerable talent and force of character, and exercised a great influence over Lopez. He at once took the office of minister of war, and began to prepare secretly for a forcible annexation to Paraguay of parts of Brazil, the Argentine Republic, and Bolivia. In 1862 he succeeded his father in the presidency, and in 1864, under the pretense of protecting the "equilibrium" of the Plata river, he called on Brazil to withdraw her troops from Uruguay, where a civil war was in progress, in which Brazil had intervened. Upon the refusal of Brazil, he took possession of the Brazilian province of Matto Grosso. In 1865 he invaded the Brazilian province of Rio Grande do Sul, sending 8,000 troops through the territory of the Argentine Republic for that purpose, and, upon that government protesting, he declared war against it. Congress now conferred upon him extraordinary powers, and he invaded the Argentine Republic before the declaration of war had reached Buenos Ayres. Brazil, Uruguay, and the Argentine Republic entered into an alliance against him, and in 1866 invaded Paraguay. The war continued four years, Lopez recruiting his forces by a conscription of all persons between the ages of 12 and 70. In 1868 the Brazilian fleet bombarded Assuncion, and the same year Lopez arrested and put to the torture many of the civil officers of the government and the foreign diplomatic corps on a charge of conspiracy. A number were executed, and the lives of some of the members of the American mission were saved only by the timely arrival of an American squadron. Finally, Mar. 1, 1870, Lopez, who had gradually been driven into the n. of Paraguay, was overtaken by the Brazilian cavalry at the Aquidaban river, and, while trying to swim across, was killed. His last words were, "I die for my country." His eldest son was also killed; his mistress, Mrs. Lynch, was spared, and returned to England. The remnant of his forces immediately surrendered.

LO'PEZ, NARCISO, 1799-1851; b. Venezuela. After serving in the Spanish army, in which he attained the rank of col., he removed to Cuba upon the evacuation of Venezuela by the Spanish troops, and became a liberal leader. He was in Spain during the first Carlist insurrection; and sided with the royalists, receiving office from the crown. In 1849 he came to this country to organize an expedition against Cuba, where he landed in 1851, but was soon taken prisoner and put to death.

LOPHIODON, an extinct genus of ungulate mammals, belonging to the family *tapiridae*, of which the genus *tapirus* is the only surviving member. Their remains are found in the eocene tertiary formation of central Europe. Some 15 species of lophiodon are known. They much resembled the tapirs, but possessed distinctive dental characteristics, the formula being: $i., \frac{3-3}{3-3}; c., \frac{1-1}{1-1}; pm., \frac{3-3}{3-3}; m., \frac{3-3}{3-3} = 40$,—the tapir having $i., \frac{3-3}{3-3}; c., \frac{1-1}{1-1}; pm., \frac{4-4}{3-3}; m., \frac{3-3}{3-3} = 42$, or two more molars than in lophiodon. The limbs of the animal are still unknown. The genus has not been satisfactorily identified in America, but the species, which abounded in Europe during the eocene, varied in size from that of a rabbit to a rhinoceros. Other genera of *tapiridae* are *hyracotherium*, *pachynolophus*, *ptilophus*, *lophiotherium*, and *propalaeotherium*, found in European eocene. In North America the nearest allies of lophiodon are *helates* and *hyrachius*. The latter genus has four premolars in the upper jaw, resembling the true tapirs. The premolars resemble those of lophiodon in being less complex than the molars. In the North American miocene the *tapiridae* belong to the genus *tapiravus*. See PERISSODACTYLA; TAPIR; UNGULATA.

LORAIN', a n. co. of Ohio, bounded n. by lake Erie; traversed by the Lake Shore and Michigan Southern, the Lake Shore and Tuscarawas Valley, the Cleveland and Toledo, and the Cleveland, Columbus and Cincinnati railroads; pop. 30,308. It has a fertile soil, and the chief productions are live stock, grain, fruit, wool, hay, butter, and cheese. There are manufactures of cheese, lumber, clothing, carriages, furniture, harness, metallic ware, etc. Capital, Elyria.

LORD, ELEAZAR, LL.D., 1788-1871; b. Franklin, Conn., and educated at Andover, Mass.; removed in 1809 to New York, where in 1812 he entered the ministry of the Presbyterian church. He was among the founders of the American education society for assisting poor young men in their preparations for the Christian ministry, the New York Sunday-school union, and various other benevolent associations; was corresponding secretary of the New York Sunday-school union 1818-26, and president 1826-36. In 1818 he left the ministry to engage in banking; founded the Manhattan insurance company, and served as its president 1821-34; was the first president of the Erie railroad company; removed in 1836 to Piermont, N. Y.; was a prominent friend of the New York university, and assisted in founding theological seminaries at East Windsor, Conn., and Auburn, N. Y. His principal works are *Principles of Currency*; *Geology and Scriptural Cosmogony*; and an edition of Lemprière's *Biographical Dictionary*, with numerous additions. Died at Piermont.

LORD, JOHN, LL.D., b. at Portsmouth, N. H., 1810; graduated at Dartmouth college in 1833; was for some time an agent of the American peace society, and subsequently a preacher in New Marlboro', Mass., and Utica, N. Y. A few years later he left the pulpit to devote himself to historical research and popular lecturing. Beginning his new career in England and Scotland, he returned to the United States in 1846, since which time he has been engaged with great success in lecturing upon historical subjects in the principal cities and towns of this country. Destitute of the special gifts and graces of an orator, he yet crowds his lectures with information and delivers them in a manner so peculiar as to command the unflagging interest of his audiences.

LORD, NATHAN, D.D., LL.D., 1793-1870; b. in South Berwick, Me.; graduated at Bowdoin college 1809, and at Andover theological seminary 1815; was pastor of a Congregational church at Amherst, N. H., 1816-28, and president of Dartmouth college, 1828-63. After the formation of the American antislavery society in 1833 he was for a time an abolitionist and even elected as an officer of that society, but later changed his position, avowing his belief that "slavery is an institution of God according to natural religion," and "a positive institution of revealed religion." Although his opinions on this subject were very distasteful to the friends of the college in general, yet, on account of his many estimable personal qualities, he was for a long time undisturbed in his place at the head of the institution. Died at Hanover, N. H.

LORD'S DAY, THE (*ante*), the first day of the week, on which Christ rose from the dead; synonymous in popular speech with Sunday or Sabbath. This name is generally used in the English and American statutes intended to secure the civil observance of the day. English legislation on this subject may be traced as far back as 1449, but it was not until 1678 that the law was passed which may be regarded as the foundation and model of all subsequent enactments of its class in Great Britain and the United States. By this law it was enacted "that no tradesman, artificer, workman, laborer, or other person whatsoever, shall do or exercise any worldly labor, business, or work of their ordinary callings upon the Lord's day or any part thereof (works of necessity and charity only excepted);" and "that no person or persons whatsoever shall publicly cry, show, forth, or expose to sale, any wares, merchandise, fruits, herbs, goods, or chattels whatsoever, upon the Lord's day or any part thereof." In the American colonial days the state assumed jurisdiction of religious as well as civil affairs; hence much of the Sunday legislation of that period has either been repealed or become dead from disuse. It is now generally conceded that with the Lord's day, regarded simply in its religious

aspects, the state has no concern. It cannot require a citizen either to attend public worship or to observe any religious ceremony on that day. But it is held that the day is indispensable, needed by the community, upon purely secular grounds, and must, therefore, be maintained by government. A day of rest from ordinary labors and cares, recurring not less frequently than once in each week, is held to be requisite to the general welfare of body, mind, and estate; therefore, it is insisted that the government has the right and the duty to designate such a day and to enforce its observance. Moreover, those who observe the day upon religious grounds, making it a day of public as well as private devotion, are, it is conceded, entitled to protection from the noise and disturbance which would result from the general pursuit of business on that as on other days of the week. The laws upon this subject in the different states of the union, though resting substantially upon common ground, differ in details, and the decisions of courts upon questions that have arisen under them are in some respects conflicting. The whole subject has been greatly complicated of late years by the introduction into the country of large bodies of immigrants from continental Europe, whose habits in respect of Sunday observance are much less rigid than those of the great body of our native population. It is probable that, on this account, the laws upon the subject may undergo some further modifications, but there is no reason to fear that the state will cease to maintain the institution of the Lord's day as a day of rest from business cares, or to protect from disturbance those who hold it sacred on the highest grounds of morality and religion. The manifest tendency to increase greatly the facilities of travel by railroad and steamboat on the Lord's day is causing alarm of late, and awakening earnest protest. It is felt—religion aside—that this country cannot afford, either morally, physiologically, or pecuniarily, to lose its one day of peace. Though the protest against the degradation of the day bases itself thus on secular considerations, and finds immense strength in these, it will probably be found that the real force of all successful efforts for the maintenance of the day, on even civil grounds, must spring ultimately from a religious—a distinctively Christian—source.

LORELEI. See LURLEI, *ante*.

LORENCEZ, CHARLES FERDINAND LATRILLE, Comte de, b. France, 1814; educated in the French military school of St. Cyr and attached to the army of Africa and the Crimea, he distinguished himself at the capture of the Malakoff and was made general of brigade; was put in command of the French expeditionary corps in 1862 for the subjugation of Mexico, where he participated in several victories and defeats of the French armies. After the appointment of gen. Forey to the command of the French in Mexico he returned to France, and was a devoted adherent of Louis Napoleon.

LO'RENZ, OTTOKAR, b. Iglau, Moravia, 1832; educated in Vienna, and appointed professor of history in the university there in 1860. In 1857 he received a governmental appointment in the department of the secret archives, which he was compelled to relinquish in 1865 on account of some indiscreet disclosures.

LORETO, SISTERS OF, or "Friends of Mary at the Foot of the Cross," a Roman Catholic sisterhood founded in Kentucky by Charles Nerinckx, a priest (1761-1824). The order is devoted to the cause of education and the care of destitute orphans, and has many establishments in the western states.

LORETTE', a beautiful village 9 m. from Quebec, a place of much resort, on account of its waterfall. The works for the supply of Quebec with water are here, and flour and paper are manufactured to some extent. Pop. about 1200, a portion of whom are Huron Indians.

LORICATA, a name applied by Merren and Fitzinger to the crocodiles and those other reptiles which are provided with plated armor, *loricata* instead of *squamata*, the emydosaurians of De Blainville. The term is usually applied to the crocodiles alone.

LORIKEET, a species of parrot very numerous in Australia and the eastern archipelago, having the tongue covered with bristly hairs, with which they collect honey from flowers. They are of very beautiful plumage, and being gregarious present a most beautiful spectacle, flying in flocks containing sometimes over a thousand birds. They belong to the genus *trichoglossus*.

LORIMER, GEORGE CLAND, b. 1837; lost his father while very young, and, his mother marrying again, he was brought up by his stepfather, who was connected with the theatrical profession in Edinburgh. He attended school in that city, and acted as call-boy in the theater in the evening; but at length went to sea for a time. On his return to Edinburgh he resumed his stage connection; and, after a time, went to Newcastle and Dublin, and in the latter city acted as assistant stage-manager at the Queen's theater. He was of a studious disposition, and employed his leisure in reading and in cultivating a knowledge of the classics. In 1855 he removed to America, and played in Louisville, Ky., with success. It was at this time, and at the age of 18 years, that he became so impressed with religious convictions that he joined the Baptist church and left the stage permanently. He now entered upon a collegiate course at Georgetown, Ky., where he received the degree of A.M. Some years later he took the degree of D.D. at Bethel college. In 1859 he was ordained at Harrodsburg, Ky., and took charge of a church in Paducah in that state in 1860. Later, he was called to the Walnut street

church in Louisville, the one with which he had first united. In 1868 he removed to Albany, N. Y., and in 1870-71 to Boston, Mass., where he occupied the pulpit of the Shawmut Avenue church, and drew crowded audiences. He took charge of the congregation of Tremont Temple shortly after, and remained in that church six years, at the same time acting as associate editor of the *Watchman*. In 1879 he took charge of the First Baptist church in Chicago.

LORING, CHARLES GREELEY, LL.D., 1794-1867; b. Boston; graduated at Harvard in 1812; studied law, and for many years was eminent as a practitioner in his native city. From 1857 to 1867 he was actuary of the hospital life and trust company. He was author of *Neutral Relations of the United States and England*, a *Life of William Sturgis*, and various public addresses. Died at Beverly.

LORING, FREDERICK W., 1846-71; b. at Newtonville, Mass.; graduated at Harvard in 1870, and soon won a high reputation as a writer by his contributions to leading magazines and papers, and especially by a novel, *Two College Friends*, which was thought to exhibit rare powers and to give promise of high distinction. In the capacity of literary correspondent he joined the party of lieut. Wheeler, which was sent to explore Arizona, and was murdered by the Indians in that territory Nov. 5, 1871.

LORING, GEORGE BAILEY, b. North Andover, Mass., 1817; graduated at Harvard college in 1838, and at the Harvard medical school in 1842, after which for several years he was physician at the Chelsea (Mass.) marine hospital. Since 1850 he has devoted himself extensively to the study of science in its applications to agriculture, and to the pursuits of public life. Residing in Salem, he has several times represented that city in both branches of the legislature, and served for several years as president of the senate. He was also for many years president of the Massachusetts agricultural society, and a member of the republican national convention in 1868 and 1872. He enjoys a high reputation as a public speaker, and has often been the chosen orator upon occasions of popular interest. Some of his orations have had a wide circulation. In the state senate he made an effective plea for scientific education in support of the plans of the late prof. Agassiz, and spoke eloquently in defense of Charles Sumner's action in regard to the "regimental colors" used in the civil war. He was a member of congress from the Essex district, 1877-81, and has been a large contributor to Flint's *Agricultural Reports* and Murray's work *On the Horse*.

LORING, WILLIAM W., b. N. C. about 1815; served as lieut. of mounted volunteers in the Florida war of 1835-42; became capt. of mounted rifles 1846, and maj. 1847; commanded a regiment in the war with Mexico; was brevetted lieut.col. for bravery at Contreras and Churubusco, and col. for his gallant services at Chapultepec; lost an arm in the capture of the city of Mexico; was commander of an expedition against the Indians of New Mexico in 1857; resigned his colonelcy and entered the confederate army in 1861, where he was first a brig. and afterwards a maj.gen., serving in West Virginia, at Vicksburg, Chattanooga, etc. After the rebellion ended he went to Egypt and became chief of staff of the khedive.

LORINSER, KARL IGNAZ, 1796-1853; b. Bohemia; educated at Prague and Berlin, and for a time instructor in veterinary surgery in medical colleges at Berlin and Stettin, and subsequently medical councilor in various places. He published *Encyclopädie der Thierheilkunde*, 1820; *Untersuchungen über den Rinderpest*, 1831; and *Zum Schutze der Gesundheit auf Schüler*, 1836. The latter work made a great sensation, and led to the revival of gymnastic exercises in the German schools.

LORRAINE, CHARLES DE, Cardinal, 1525-74; b. France; became archbishop of Rheims when only 13 years of age, succeeding his uncle, Jean de Lorraine. Having officiated at the coronation of Henry II. in 1547, he was made cardinal. He was now employed on various diplomatic missions, which he conducted with success, gaining a high reputation for skill and astuteness in delicate negotiation. He was, however, suspected by the king, and but for the influence of Diana of Poitiers would have lost the royal favor. This at length happened on his quarreling with Diana, but having officiated at the coronation of Francis II. he became finance minister. In 1561 he officiated for the third time at a coronation, that of Charles IX., and in 1569 was sent to Spain to negotiate a marriage between that monarch and Elizabeth of Austria. He is said to have endeavored to introduce the inquisition into France, and to have favored the massacre of St. Bartholomew, though he was away from France at the time. He was warmly interested in letters, founded the university of Rheims, and was a brilliant orator and writer; but he was a bigot, ambitious, cruel, and vain.

LORRAINE, CLAUDE (CLAUDE LORRAINE, *anté*). The name of Claude Lorraine glass is given to peculiarly tinted glass, sometimes used in opera-glasses and stereoscopes, which is supposed to give to the objects viewed the coloring characteristic of the artist's works. The term is used, however, by artists and opticians as the name of an appliance consisting of a plate of glass ground very slightly convex on the exterior and concave on the inner side and coated with a surface of black composition highly polished. This is so placed as to reflect a landscape, which may be then drawn from the reduced image in the glass, the convexity of surface assisting in the perspective and distance.

LORTZING, ALBERT GUSTAV, 1803-51; b. Prussia; went upon the stage when very young, retaining his connection with it as actor, singer, or composer till his death. He is best known as the composer of *Zar und Zimmermann*; *Undine*; and *Der Wildschütz*.

LOS ANGELES, a s. co. of California, 2,125 sq.m.; pop. '80, 33,379. The Pacific ocean bounds it on the s. and s.w.; its climate is semi-tropical; the productions are fruits, nuts, and grapes, live-stock, wool, grain, and olives. There is a large production of wine and brandy. In the n. region the surface is dry and sandy, but the valleys that intersect the coast range are many of them fertile. Watered by the Los Angeles river, irrigation is practiced in some parts, and artesian wells are depended upon for drinking water. There are hot springs possessing medicinal properties. The Southern Pacific railroad, in progress, will make connection with San Francisco, to which point steamers run from Santa Monica. Co. seat, Los Angeles.

LOS ANGELES, a city in s. California, on the river of the same name, 30 m. from its mouth; pop. '80, 11,311; reached by the Southern Pacific railroad from San Francisco. It is connected with Santa Monica, on the coast, by a railroad 18 m. long: from this point there is also communication with San Francisco by steamer. Originally settled by the Spaniards in 1780, it was called by them *Pueblo de Los Angeles*, "town of the angels," from the extreme beauty of its situation and the charm of its climate. It was built of adobe; but the old structures have been destroyed in most instances, and replaced by larger and more imposing buildings. The Los Angeles valley is very fertile, and the city is the center of the orange-growing industry of California, while the plain below is covered with fine vineyards; lemons and olives also are largely cultivated. The climate of Los Angeles is mild and delightful, and it is greatly frequented by invalids, who prefer it even to San Diego, on account of its freedom from the coast winds. It is the market for the interior of that part of California, and does a thriving business. It contains public schools, a college (St. Vincent's), a library, and several newspapers, English, German, and Spanish.

LOS HERREROS. See **BRETON DE LOS HERREROS**, *ante*.

LOS KIEL, GEORGE HENRY, 1740-1812, b. Courland, Russia; entered the ministry of the Moravian church, and wrote a history of the missions of that church among the Indians of North America from the accounts of the missionaries Gottlieb Spangenberg and David Zeisburger; was ordained a bishop at Hernhutt in 1802, and came at once to the United States as superintendent of the Moravian churches and pastor at Bethlehem, Penn., where he died.

LOSSING, BENSON JOHN, LL.D., 1813; b. New York. After serving an apprenticeship at the watch-making trade, he became editor, in 1835, of the *Poughkeepsie Telegraph*, and in 1836 of the *Poughkeepsie Casket*, a literary magazine, with illustrations by himself. In 1838 he began business in New York as a wood-engraver, during the next ten years editing and furnishing the illustrations for the *Family Magazine* and the *Young People's Mirror*. He had already begun the study of American history, to which he henceforward devoted himself. He traveled extensively in the United States, visiting and making sketches of places of historical interest, and contributing illustrated articles on historical subjects to various periodicals. Among his numerous works may be mentioned *Pictorial Field-Book of the Revolution*, 1852; *Pictorial History of the United States*, 1854; *Life of Washington*, 1860; *The Hudson*, 1866; *Pictorial History of the Civil War*, 1866-69; *Pictorial Field Book of the War of 1812*; *Our First Century*, 1876; *Story of the U. S. Navy for Boys*, 1880; and *Cyclopædia of U. S. History*, 1881. He is an admirably picturesque, instructive, and interesting historical writer, and his works have for years been very popular.

LOSS OF SPEECH. See **APHASIA**, *ante*.

LOT, properly that which falls to one as his portion, and then a die or anything used in determining events by chance. The custom of deciding doubtful questions by lot is of high antiquity and of great extent. Among the Hebrews, the land of Canaan was divided by lot among the tribes, and the cities distributed among the priests and Levites. The choice of men for an invading force, the apportionment of possessions, spoil or prisoners to captors or foreigners, the detection of a criminal as Achan, the selection of the scapegoat on the day of atonement, and the appointment of persons to office as in the choice of an apostle,—in all these cases the lot was used, but always with solemn reference to the interposition of God. We have no information as to the precise manner of casting lots; several modes may have been practiced. Among the ancients, with whom the use of the lot was very general, it was considered as a sort of appeal to the Almighty, free from all influence of passion or bias. Among the heathen, the choice of a champion in combat, the decision of fate in battle, the appointment of magistrates, priests, or other functionaries, the division of conquered or colonized land, was done by lot. There was a mode of divination with pagans by means of arrows, two inscribed and one without mark; and among the Germans the practice of deciding by marks on twigs, as mentioned by Tacitus. The Greeks and Romans were accustomed to divine events by marking various lots with a prophetic verse. Also, on opening the works of the poets, they considered the passage which they first saw as an oracle. The Bible has been used in the same way, the use of words or passages chosen at random from Scrip-

ture being received as a token of the divine will. *Sortes Biblicæ* prevailed among Jews and among Christians, though denounced by several councils. Election by lot prevailed in the Christian church as late as the 7th century.

LOT, a biblical character, son of Haran, the brother of Abraham, and the grandson of Terah. The events of his life will be found in Gen. xi.-xix. After the death of Terah, Abraham and Lot journeyed from Haran to Canaan, and thence into Egypt; and again returned to Bethel, where they accumulated great wealth, until, quarrels arising between their servants, separation was agreed upon. Lot crossed the Jordan and dwelt near the wicked city of Sodom, which afterwards was destroyed on account of its fearful depravity. Lot, warned of the Lord, fled to Zoar. From Zoar, Lot retreated to a cave in the mountains, and became the father of Moab and Ben-ammi, from whom descended the Moabites and Ammonites. This nephew of Abraham is set forth in Scripture as a man of low moral tone—falling into evil through self-seeking.

LOTBINIERE, a co. in e. Quebec, having the St. Lawrence river for its n. boundary, intersected in the e. portion by the Grand Trunk railway; 735 sq.m.; pop. '71, 20,606. It is drained by the river Du Chene and the Beaurivage river, emptying into the St. Lawrence. Its industries are represented by foundries, saw mills, grist mills, and carding and fulling mills. Seat of justice, Lotbiniere.

LOTHAIRE I., King of Italy, 796-885; son of Louis le débonnaire, and suzerain over his two brothers, Pepin and Louis, with whom he shared the empire of the west. He was crowned king of Italy by the bishop of Milan in 822, having been already named king of the Lombards two years before. Having dethroned his father, his two brothers opposed him and defeated him at Fontenay in 841. In 843 a treaty was made at Verdun, by which a satisfactory distribution of the empire was made, Lothaire receiving for his share Italy and some French provinces beyond the Rhine and the Rhone and the title of emperor. One of the French districts was afterwards called Lotharingia, after Lothaire, the son of the emperor, who was its first king. From this designation arose the name Lorraine.

LOTHAIRE II., THE SAXON, King of Germany, 1075-1137; succeeded Henry V., after having had alternate feuds and reconciliations with that monarch and his predecessor, Henry IV., during a period of 25 years. Having allied himself with pope Innocent II., he defeated the duke of Swabia in 1132, and Innocent crowned him emperor of Rome, June 4, 1133. He afterwards made an expedition for the purpose of driving Anacletus, the antipope, out of Italy, and was completely successful, but was seized with severe illness while on his return and died. The session of the diet of Magdeburg, 1135, occurred during his reign, when the first regulations of the German empire were formulated.

LOTHARINGIA. See LORRAINE, *ante*.

LOTHROP, SAMUEL KIRKLAND, D.D., b. Utica, N. Y., 1804; graduated at Harvard in 1825, ordained at Dover, N. H., in 1829, where he remained until 1834, when he became pastor of the Brattle Street church (Unitarian) in Boston. He wrote the *Life of Samuel Kirkland*, his grandfather, for Sparks's collection of biographies, and a *History of Brattle Street Church*. Many of his occasional sermons and addresses have been published.

LOTHROP, THOMAS, b. probably in England; was a citizen of Salem, Mass., in 1634, and a representative of that city in the "general court" in 1647, '53, and '64. He subsequently settled in Beverly, where he founded a church and was prominent in civil affairs, representing the town four years in the "general court." On the breaking out of king Phillips's war he led a company of militia, called "the flower of Essex," to Deerfield, where they were surprised and nearly all killed by the Indians, Sept. 29, 1675. A marble monument was erected in 1838 at "Bloody Brook," where the massacre took place, in memory of capt. Lothrop and his companions.

LOTTERY (*ante*). In this country lotteries were generally tolerated, though not without earnest remonstrances from some quarters, until about 1830, when the opposition to them assumed a tangible form, and not long afterwards they were forbidden by law in several states, and opposed by a strong public sentiment in others. Before this time they were chartered for a great variety of objects, such as the erection of colleges, academies, asylums, hospitals, and even houses of worship. As a convenient way of raising money for public and charitable objects, they were for a long time tolerated by men of influence, who were not wholly blind to their demoralizing tendency. As early as 1699 an assembly of ministers in Boston denounced them as a "cheat," and their agents as "pillagers of the people;" but such testimonies, being generally regarded as too straitlaced and paritanic, exerted but a feeble influence. For a whole century and more afterwards, lotteries were in fair repute as a means of raising money for public and charitable objects. Indeed, it was not until after 1830 that any organized movement for their suppression was made. In Boston, in 1832, an association of young men connected with Dr. Lyman Beecher's church, after a careful investigation of the subject in all its bearings, condemned them and called for their extermination on grounds of morality and public policy. This action was extensively approved by the press, and did much to create a sound public opinion in New England. In 1833 Job R. Tyson of Philadelphia

published *A Brief Survey of the Great Extent and Evil Tendencies of the Lottery System of the United States*, and in the same year a society was formed in Pennsylvania to promote the abolition of the system, which was accomplished within a year or two in Pennsylvania, Massachusetts, and Connecticut. Maryland followed in 1836, and from this time the progress of the reform was rapid. At the present time it may be said that lotteries are under legislative ban in every state of the union, though in a few states the laws on this subject, being partly prospective in their application, have not yet been carried into full effect. In most, if not all the states, the sale of tickets for foreign lotteries is prohibited, and to advertise them is a penal offense. A few years ago the so-called "art unions" were permitted to dispose of pictures and statuary by lottery; but this is now generally forbidden.

LOTZE, RUDOLF HERMANN, b. Saxony, 1817; educated at the gymnasium of Zittau and the university of Leipsic, graduating in 1838 in medicine and philosophy, and in the following year filling the chair of philosophy at Leipsic as an adjunct professor. In 1842 he was made extraordinary professor at the university of Leipsic, and two years later ordinary professor at Göttingen. He has written voluminously on metaphysics, leaning toward the doctrines of Leibnitz and Herbart. Among the more important of his works are *Metaphysik* (Leipsic, 1841); *Logik* (1843); *Mikrokosmos* (3 vols., 1856-64); and *Geschichte der Aesthetik in Deutschland* (Munich, 1868, *et seq.*) His rank among living metaphysicians is high, though the estimates of him differ among different schools of thinkers.

LOUDON, a co. of e. Tennessee, traversed by the Tennessee river, and intersected by the East Tennessee, Virginia and Georgia railroad; 300 sq.m.; pop. '80, 9,148. It extends through a beautiful and fertile valley, and produces largely of grain and live stock. Co. seat, Loudon.

LOUDON, or LOUDOUN, co. in n.e. Virginia, bounded on the n.e. by the Potomac river, which separates it from Maryland; intersected by the Washington and Ohio railroad; 460 sq.m.; pop. '80, 23,634. The Blue ridge is on the n.w. border of this county, and the Kittoctan mountain is in the center. Its productions are wheat, Indian corn, oats, potatoes, wool, butter, and hay. It has a number of manufactories and mills. Co. seat, Leesburg.

LOUDON, GIDEON ERNEST, See LAUDONH.

LOUIS OF BADEN (LOUIS WILLIAM I.), Margrave of Baden-Baden, 1655-1707; b. Paris; was a soldier under Montecuculi against the French, and fought the Turks in 1683 with great valor. In 1693 he recaptured Heidelberg, then in the hands of the French, being then in supreme command of the imperial army. He also fought with success in Alsace. He attempted to succeed John Sobieski as king of Poland, but was unable to accomplish his purpose. He was esteemed a general of rare ability, and not less an engineer of talent. In the latter capacity he designed certain important military works on the Rhine.

LOUIS I., King of Bavaria. See LUDWIG I., KARL AUGUST, *ante*.

LOUIS IV., THE BAVARIAN, Emperor of Germany, 1285-1347; b. Germany; son of Louis the severe, duke of Bavaria; pursued his early studies under the direction of his mother, Matilda, daughter of the emperor Rudolph I. of Hapsburg. His father being dead, he became co-heir with his brother Rudolph, and co-regent of the realm. In 1314 he was elected the successor of Henry VII. of Luxembourg, who had died in Italy the previous year, the majority voting for him, but a large minority declaring at Cologne in favor of his cousin, Frederick the fair, called Frederick le bel, of Austria (son of the emperor Albert I. and grandson of Rudolph of Hapsburg), proclaiming him emperor Frederick III. Louis was victorious in the battle of Mühldorf, Sept. 28, 1322, bringing to a close a long and ruinous war, which had laid waste a large part of Germany, and taking Frederick prisoner compelled him to renounce all claim to the succession. In 1323, having by his support of the Visconti in Milan caused the estrangement of pope John XXII., he was excommunicated Mar. 21, 1324, and commanded by the pope to appear before him; but he appealed to a general council, and the summons was declared null and void by the diet of Ratisbon. In 1324 he married Margaret of Holland. In 1325 a treaty was formed by which Frederick was released from imprisonment on condition that he would return and deliver himself again to Louis if he found himself unable to induce his adherents to transfer their allegiance. The contrary being the result, the vanquished returned into captivity in conformity with his oath, and was appointed governor of his own Bavarian possessions. In 1327 Louis defied the pope of Rome, accusing him of heresy, and was crowned king in Milan, receiving at Rome in 1328 the sacred sanction of the bishops of Venice and Aleria. Through his influence pope John was deposed, and Peter de Corbière, called Nicholas V., was established antipope. This movement resulting in general unpopularity, he returned to Germany to defend his possessions there, which were continually threatened by John XXII. and his successors, Benedict XII. and Clement VI., with their foreign allies, assisted by French intrigues. He added to his strength in Germany the dominions of Holland, Zealand, Friesland, etc., which had come to him with his wife, Margaret of Holland. He was suddenly killed by a fall from his horse while hunting at Fürstenfeld, near Munich.

LOUIS I., LE DÉBONNAIRE or THE PIOUS (*ante*), Roman emperor, king of the Franks, 778-840; b. at Casseneuil; son of Charlemagne by his third wife, Hildegarde. His elder brother having died he succeeded his father in 814. He was quite successful for a time, but in 817 he was persuaded to give his three sons, Lothaire, Pepin, and Louis, a share in his dominions, and from this arose complications that finally led to a dissolution of the empire. Bernard, a nephew of Louis, who had inherited Italy after his father, receiving nothing under the new arrangement, revolted; but the emperor allured him to Chalons, made him a prisoner, put out his eyes, and gave Italy to his son Lothaire. In his remorse for this crime the emperor sought consolation in the church, and thenceforth was a mere tool in the hands of the priests. In 819 he married a second wife, Judith of Bavaria, who in 823 bore him a son, known in history as "Charles the bald." In 829, in the interest of this son, he proposed a new division of the empire; but to this the elder sons objected, and the result was a war which lasted during the remainder of the emperor's life. Twice the father was defeated, taken prisoner, and deposed by his sons; but Lothaire, by his ambition to turn everything to his own account, incurred the hostility of his brothers, who conspired to raise the father again to the throne. On the death of Pepin in 838 Louis I. proposed to exclude his elder sons, Lothaire and Louis, from their inheritance, and to give his dominions to Charles the bald. Against this arrangement Louis revolted, and was joined by the sons of Pepin. In the midst of the war the emperor died at Ingelheim and was buried at Metz.

LOUIS II., LE BÈGUE, King of France (see CARLOVINGIANS, *ante*), b. in 846; a son of Charles the bald; reigned 877-79.

LOUIS III., King of France (see CARLOVINGIANS, *ante*), b. 863; eldest son of Louis II. The kingdom being divided in 879 between his brother Carloman and himself, he had allotted for his share that portion called Neustria. The Normans having invaded France, he successfully resisted them and gained a battle. At his death, at about the age of 20 years, Carloman reigned alone over France.

LOUIS IV., D'OUTREMER, King of France (see CARLOVINGIANS, *ante*); reigned 927-54; a son of Charles the simple; was educated in England at the court of king Athelstane, his mother's brother. On the death of Raoul of Burgundy in 936 he was called to the French throne by Hugh of Paris and William of Normandy, by whose intrigues his reign was constantly disturbed.

LOUIS V., LE FAINEANT, King of France (see CARLOVINGIANS, *ante*), b. 966; son of Lothaire and Emma; reigned 986-87; the last king of the Carolingian dynasty.

LOUIS VI., THE FAT; VII.; VIII., THE LION; IX., SAINT LOUIS (LOUIS IX., *ante*), Kings of France. See CAPETIAN DYNASTY, *ante*.

LOUIS XII., b. 1462, King of France, succeeding Charles VIII.; son of duke Charles of Orleans, and a descendant of Valentina Visconti. He reigned 1498-1515. In 1500, by virtue of his descent, he laid claim to Milan, conquered it, and took Ludovico Sforza prisoner. By the aid of Ferdinand of Aragon he conquered Naples too, but the allies quarreled over the partition of their conquest, and in 1503 Gonsalvo de Cordova expelled the French from southern Italy. In 1508 pope Julius II. formed the league of Cambray against the republic of Venice, being joined by Ferdinand of Aragon, Louis XII., and the emperor of Germany; but Venice having conciliated the pope by concessions, the league was dissolved, and a new one, called the "holy league," was formed between the pope, the emperor, Venice, Ferdinand of Aragon, and Henry VIII. of England against France, and in 1513 the French were expelled from Italy.

LOUIS THE GREAT, King of Hungary. See HUNGARY, *ante*.

LOUIS II., Roman Emperor (see CARLOVINGIANS, *ante*), 822-75; the oldest son of Lothaire I., and reigned 855-75. By the treaty of Verdun, the empire, after the death of Louis le débonnaire, was divided between his three sons, Lothaire I., Louis the German, and Charles the bald. Italy was assigned to Louis II., who took the title of emperor; Charles took Provence and Lyons; and Lothaire II. the region called Lotharingia, or Lorraine. Louis II. defeated the Saracens at Benevento in 848, and expelled them from Bari. He established his authority over the great families of Italy, many of whom conspired with the Byzantine empire. Charles having died without children in 863, his brothers, Louis II. and Lothaire II., divided his dominions between them. Lothaire II., six years later, also died without issue, when Charles the bald and Louis the German seized and divided his dominions. Louis II. d. at Brescia, leaving no male issue, whereupon his two uncles seized his dominions, the province of Lorraine falling to Germany.

LOUIS III., THE CHILD, Roman Emperor (see CARLOVINGIANS, *ante*), 893-911; raised to the throne of Germany on the death of his father, Arnulf in 899 by duke Otto of Saxe, margrave Luitpold of Austria, and archbishop Hatto of Mentz, it being their desire to govern the country during his minority. Germany was in a wretched condition under their rule, and the Hungarians seized this opportunity and devastated it as far as Thuringia. In the death of Louis III., who reigned 908-11, the Carolingian dynasty was extinguished in Germany.

LOUIS, PIERRE CHARLES ALEXANDRE, 1787-1872; b. in the department of Marne, France; graduated in medicine at Paris 1813, and afterwards entered the *hôpital de la*

charité, and pursued the study of pathological anatomy. In 1825 he published *Recherches Anatomico-pathologiques sur la Phthisie*; and in 1826 *Recherches sur la Membrane Muqueuse de l'Estomac*, of which a second edition was published in 1843. These works gained him admission to the academy of medicine. In 1828 he was one of the commission sent to Gibraltar to investigate yellow fever. There also appeared in 1828 his *Recherches sur la Fièvre Typhoïde*, republished in 1841; *Examen de l'Examen de Broussais*, in 1834; and in 1835 *Recherches sur la Effets de la Saignée dans Quelques Maladies Inflammatoires*. He retired from practice in 1854, having won a great reputation as a medical scientist. He was one of the most prominent in the profession to advocate the importance of statistics in medical investigations. He died in Paris.

LOUISA, a s.e. co. of Iowa, 400 sq.m.; pop. '80, 13,146; traversed by the Burlington, Cedar Rapids and Minnesota railroad, and watered by the Iowa river. The surface is level, and the soil fertile, broad bottom lands occurring at intervals. The most important productions are cattle, grain, and wool. Co. seat, Wapello.

LOUISA, an e. central co. of Virginia, 460 sq.m.; pop. '80, 18,941. The surface is irregular, the soil productive, tobacco and grain being the staples. There are no important manufactures except flour. The Chesapeake and Ohio railroad intersects this county. Co. seat, Louisa Court-House.

LOUISA (LUISE AUGUSTE WILHELMINE AMALIE), Queen of Prussia. See LUISE, *ante*.

LOUISA ULRICA, 1720-82, Queen of Sweden; sister of Frederic the great; b. in Berlin; married in 1744 the crown-prince Adolphus Frederick of Sweden, afterwards king. She was a woman of rare intelligence. Through her influence the great botanist Linnæus was enabled to publish his system. The academy of belles-lettres and history and the museum at Stockholm, as well as a library and art-museum at Drottingholm, were founded through her influence. She was mother of Gustavus III. and Charles XIII.

LOUISBURG, a t. in s.e. Nova Scotia, on the Atlantic coast, at the mouth of a small estuary; is the terminus of a railroad 30 m. in length from Sydney across the co. of Cape Breton. It had formerly a finely built stone fortress, mounting 65 cannon and 16 mortars, erected by emigrants from the French settlements after the peace of Utrecht in 1713, and named in honor of Louis XIV. The harbor was defended by a high wall and a ditch 80 ft. wide, a battery of 30 guns on Goat island, and another, the "royal battery," farther down the harbor, mounting 30 guns. These fortifications, built in 30 years and costing \$5,550,000, were destroyed by the British in less than three months at an expense of \$50,000. In 1745 the legislature of Massachusetts Bay, on account of the danger menacing its fisheries from the proximity of a fortified town belonging to the French and the shelter given to the privateers of a country with which they were at war, by the advice of gov. Shirley and a majority of one vote in a secret session, sent a force of 3,250 men of the state militia, under command of William Pepperell, with 516 men of Connecticut and 304 of New Hampshire, with a fleet of 100 New England vessels and a squadron under the British commodore Warren, against the town, which landed in its vicinity April 30. The siege ended June 17, 1745, by the surrender of 1600 Frenchmen under Duchambon. The English also captured a large ship in the harbor coming with reinforcements for the French; and on their triumphant entrance to the town the same drums were beaten that, 30 years afterward, were beaten at Bunker Hill. In 1748 the place came again under French rule as one of the results of the peace of Aix-la-Chapelle. In 1757 6,000 regulars, 4,000 men from New England, and others from New York and New Jersey, were ordered to report at Halifax for the purpose of making an attack on Louisburg, but were disheartened by the prospect of a well-garrisoned fort and 17 French ships of war moored in the harbor, and discreetly withdrew. In 1758 the town was bombarded by 14,000 British troops under gen. Amherst, with a fleet including 20 ships of the line, 18 frigates, and some smaller vessels, sailing from Halifax. The surrender of the French garrison of 3,100 men, under the chevalier de Drucourt, and a fleet of 8 ships, occurred July 26, 1758; and 5,637 soldiers and sailors were taken prisoners. It had formerly a pop. of 3,000 in a well-built town on the s. side of the harbor, and had a large trade in codfish, exporting annually 500,000 quintals, employing (while under French dominion) for this and other branches of trade, and in the fisheries, 600 vessels. Under English government its trade has diminished, and a convenient harbor, one-half mile wide at the entrance, is used simply as a stopping-place for steamships. It is occupied by about 300 fishermen, and has a light-house on the e. side of the harbor.

LOUISIANA (*ante*). In 1541 De Soto visited and explored the region around New Orleans. and, dying in the following year, was buried in the waters of the Mississippi. In 1673 father Marquette and his Canadian followers descended the river to its mouth, but founded no settlement. In 1682 La Salle descended the river and took possession of the country in the name of Louis XIV., in whose honor he named it Louisiana. It is believed, however, that no colony was founded before Iberville in 1699, with a number of colonists, settled in Biloxi, now in Alabama. Iberville, dying soon afterwards, was succeeded by Bienville, who, after he and his colonists had endured great privations, led them to the present site of New Orleans in 1706, where they made a stand

and unfurled the flag of France. The colony languished, but the colonists did not abandon their post. In 1712 Louis XIV. gave to Anthony Crozat, a Paris merchant, the exclusive privilege for 15 years of trading in all this vast region, of sending a ship once a year to Africa for a cargo of slaves, and of working the mines, one-fourth of the products of which Crozat agreed to pay over to the king. In 1717 he relinquished the colony as unprofitable, and the province fell into the hands of John Law, the great speculator, who soon came to financial disaster, and was followed by Bienville, who built up the town of New Orleans, which was made the capital of the colony in 1723. The affairs of the new settlement remained under the direction of the French crown until 1762, when the province was secretly transferred to Spain, which ruled it with a rod of iron for 38 years, when in 1800 it was restored to France. Three years later it was sold to the United States for \$15,000,000. At that time it embraced nearly all of the present states of Louisiana, Arkansas, Missouri, Iowa, Minnesota, Dakota territory, most of Kansas and the Indian territory, part of Colorado, most of Wyoming, and the whole of Montana, Idaho, Oregon, and Washington territory. In 1804 the southern portion of this vast region was organized by congress as the territory of Orleans. In 1810 another part of the state, lying between the Mississippi and the Amity and Pearl rivers, was annexed to Orleans; and in April, 1812, the territory as thus constituted was admitted to the union as a state, with the name of Louisiana. Three months after this the United States declared war against Great Britain. The war continued a little over two years, the treaty of peace being signed at Ghent, Dec. 24, 1814. Before news of the peace could cross the ocean a British force of 12,000 men, led by sir John Packenham, landed on the coast of Louisiana and made an attack upon New Orleans, which was successfully resisted by gen. Jackson with only 5,000 men, mostly militia from Tennessee and Kentucky. The progress of the state after this was rapid.

The surface of Louisiana is mostly low and level, much of the southern part especially being not more than 10 ft. above the sea-level and liable to frequent inundations from the rivers. The delta of the Mississippi is full of swamps, and the coast is lined with salt marshes. The land along the Mississippi below New Orleans and 120 m. above is below the surface of the river at high water, and protected from inundation by artificial embankments called levees. A breach in a levee, called in the language of the country a crevasse, sometimes occurs, inundating hundreds of thousands of acres of valuable land and destroying the growing crops. The northern and western part of the state is somewhat broken by low hills, nowhere rising above 200 feet. The river bottoms are exceedingly fertile, and the alluvial land is easily drained. The latter is heavily timbered, and covered with a thick undergrowth of cane. The prairies are better fitted for grazing than for culture. The hilly portion of the state consists mainly of pine barrens, on which are found oak, elm, cypress, honey-locust, and other timber. Among the forest trees of the state are the ash, walnut, hickory, poplar, mulberry, magnolia, cotton-wood, maple, buckeye, willow, paw paw, pecan, dogwood, and persimmon. The wild cane sometimes grows to a height of 30 feet. Among the fruit trees are the quince, plum, peach, fig, orange, lemon, and lime. The orange grows only in the southern, the apple only in the northern, section. The chief agricultural staples are cotton, sugar, rice, and corn. The rice and sugar plantations are found only in the southern part of the state, below lat. 30°, upon the alluvial lands along the Mississippi. Nearly all the sugar made in the United States is produced here. It is a somewhat uncertain crop. The mineral productions of the state are unimportant. Rock salt of unknown depth is found at Petit Anse upon an area of more than 140 acres, and in Calcasieu parish are deposits of gypsum and sulphur. There are salt wells in Bienville, Natchitoches, and Winn parishes.

The climate of s.e. Louisiana is to some extent malarious; but the northern and western sections are healthful, and much visited by consumptives, who are generally benefited by a residence there. By careful attention to sanitary laws New Orleans has become far more healthful than it formerly was. Owing to the prevalence of northern winds, the winter months in Louisiana are more severe than in other regions of a corresponding latitude. The summers are long and hot. The mean annual temperature at New Orleans is about 67°; that of the warmest month, 82°; of the coldest, 46°. The Mississippi, one of the largest rivers in the world, has a course of nearly 600 m. in the state.

The Red river enters the n.e. corner of the state from Arkansas and flows in a s.e. direction till it reaches the Mississippi some 40 m. below Natchez. Near its mouth it receives the Washita, which also enters the state from Arkansas and flows almost due-south. Its other affluents are the Dugdemona, the Sabine bayou, and the Bastineau river and lake. The Sabine river forms in part the western boundary of the state. The Pearl, the Tangipahoa, Tickfaw, and Amite are the principal streams e. of the Mississippi. There are besides several large bayous and estuaries, which are but secondary mouths of the Mississippi. The chief of these are the Atchafalaya, with its series of lakes, the Vermillion, the bayou Teche, bayou de Large, and bayou la Fourche. Lakes Pontchartrain, Borgne, Maurepas, Sabine, Calcasieu, Mermonteau, Grand, Marsh, Charles, Grand Chenière, Callou, etc., are all estuaries, their waters being salt from communication with the gulf of Mexico, and connected with rivers or bayous. The islands off the coast produce sea-island cotton of the finest quality.

The wild animals of the state are the black bear, wolf, panther, wild-cat, raccoon, otter, polecat, opossum, squirrel, etc.; the alligator inhabits the bayous. Among the reptiles are the rattlesnake, horned-frog, lizard, viper, moccasin snake, etc. Among the birds are the gray and bald eagle, the king vulture, the turkey buzzard, hawk, owl, gull, pelican, crane, heron, wild-turkey, wild-goose, pigeon, wild-duck, etc.

The number of acres of improved farm land in 1870 was 2,045,640; cash value of farms, \$68,215,420; estimated value of all farm products, \$52,006,622. The value of farm implements and machinery in 1870 was \$7,159,333; wages paid during the year, \$11,042,789; value of orchard products, \$142,129; of produce of market gardens, \$176,969; wheat product, 9,906 bush.; corn, 7,596,628 bush.; sweet potatoes, 1,023,706 bush.; rice, 15,854,012 lbs.; wool, 140,428 lbs.; cotton, 350,832 bales; milk sold, 833,928 galls.; cane molasses, 4,585,150 galls.; cane sugar, 80,706 hogsheads. The number of pounds of sugar raised in several successive years and the value thereof are thus stated: 1875-76, 165,450,000 lbs., valued at \$11,578,000; 1876-77, 194,964,000 lbs., valued at \$15,646,000; 1877-78, 149,469,000 lbs., valued at \$9,007,000. The product of molasses in 1877-78 was 13,576,374 galls. The rice crop of 1877 was 140,785 bbls.; that of 1877-78, 157,770 bbls. The orange crop is becoming important, but there are no accurate statistics of its increase. The cotton product of 1872 was 434,000 bales; that of 1877, 645,000 bales. The sugar crop of 1877 was 208,841 hogsheads. The manufactures of the state, aside from sugar, are not very extensive. In 1870 there were 2,557 establishments, including the sugar mills on the plantations; capital invested, \$18,313,974; wages paid, \$4,593,470; value of products, \$24,161,905, of which sum \$10,341,858 was credited to sugar alone. The other branches of manufacture were: lumber, bakery products, iron-castings, tobacco and cigars, clothing, flouring mill products, railroad cars, machinery, cotton-seed oil, ship-building, and malt liquors. Since 1870, 2 cotton factories and 5 sugar refineries have been established. The assessment of property for taxation in 1878-79 was estimated at \$177,000,000.

In domestic and foreign exports, Louisiana ranks next to New York. Its exports of domestic products for the year ending June 30, 1874, were valued at \$93,478,513. The imports of 1874 were estimated at \$14,548,056. The value of inward-bound coastwise cargoes to New Orleans in 1872 was \$160,000,000. The coastwise and foreign trade together amount probably to not less than \$400,000,000 annually. In 1874, 2,928 vessels entered the ports of the state, having an aggregate tonnage of 1,640,676 tons, and being manned by 51,854 persons. In the same year 3,042 vessels cleared from the same ports, with an aggregate tonnage of 1,743,312 tons, and manned by 49,956 men. The domestic exports from New Orleans for the year ending June 30, 1879, were valued at \$63,624,797; the imports for the same period amounted to \$7,141,989. The increase in the depth of water at the mouths of the Mississippi, by means of jetties, has had a visible effect upon the commerce of New Orleans.

In 1873 there were in the state 8 national banks, with a capital of \$4,150,000. Other banks, organized under state laws, had capitals amounting to about the same sum. There were also several savings banks and insurance companies. The pop. of the state in 1870 was 726,915, of whom 362,065 were white and 364,210 were colored. In 1874 the number of miles of completed railroad was 445, the chief lines being the Clinton and Port Hudson; the Baton Rouge, Gross Tête and Opelousas; the New Orleans, Jackson and Great Northern; the North Louisiana and Texas; the Texas and Pacific. Short canals connect the navigable waters around New Orleans.

The state institutions are the penitentiary at Baton Rouge, the insane asylum at Jackson, the charity hospital at New Orleans, and the institutions for the deaf and dumb and blind at Baton Rouge. The public debt of the state in 1878 amounted to \$11,785,293. There was a failure to pay the interest falling due upon this debt Jan. 1, 1879.

The public school fund includes: 1, the sum of \$1,130,867, the avails of lands granted by the United States for the support of free schools, on which the state pays an annual interest of 4 per cent; 2, proceeds of such taxation as the legislature may levy for the purpose; 3, any lands or other property bequeathed to the state for schools; 4, all property or funds, other than unimproved lands, bequeathed to the state and not designated for other purposes; 5, avails of lands escheated to the state. The constitution provides for the election of a superintendent of public education for a term of 4 years. Colored children are not allowed to attend the same schools with white children. According to the report of the state superintendent for 1873 there were in the state 272,334 persons of school age; number of school districts, 483; of public schools, 864; teachers, 1296, of whom 685 were males and 611 females; average salary of teachers per month, \$42.50; estimated value of school property, \$661,962; average daily attendance in 34 parishes, 35,061. In 7 parishes no schools were reported. The number of private schools reported was 296, with 794 teachers and 21,434 pupils. The principal colleges of the state are the Louisiana state university; the New Orleans university (Methodist); St. Mary, Jefferson (Roman Catholic); Centenary (Methodist); Straight university (non-sectarian, but under Congregational auspices). The New Orleans and Straight universities are open to all, without distinction of race or sex. The Louisiana state agricultural and mechanical college was established in New Orleans in 1874. It is supported in part by the avails of the land received from congress for that purpose under the act of 1862. The legislature

in 1880, in compliance with an express provision of the constitution, passed an act to establish in New Orleans a university for persons of color, to be known as "Southern university." The number of libraries reported in 1870 was 2,332, containing 847,406 volumes. There were at the same time 7 daily, 1 tri-weekly, 8 semi-weekly, and 75 weekly newspapers, about 20 of them being printed wholly or partly in French. The number of church organizations was 638, owning 599 edifices, valued at \$4,048,145.

A new constitution, framed by a convention held for the purpose, was ratified by the people Dec. 8, 1879, by a vote of 86,494 in the affirmative to 27,346 in the negative. The governor is elected by the people for 4 years, and receives a salary of \$4,000. The general assembly is composed of a senate and house of representatives; the former to consist of not more than 36 nor less than 24, and the latter of not more than 98 nor less than 70 members, to be elected for 4 years, and to receive \$4 per day while engaged in the performance of their duties. The assembly meets biennially, and its sessions are limited to 60 days. The supreme court is composed of one chief-justice and three associate justices, appointed for 12 years by the governor, with the advice and consent of the senate; their salaries are \$5,000 each, and the court, with some special exceptions, has only an appellate jurisdiction. The state is divided into 4 supreme court districts. The courts of appeal, one for each of five circuits, are each composed of two circuit judges, elected for 8 years by the two houses of the general assembly in joint session; salaries, \$4,000. These courts have no other than an appellate jurisdiction. The district courts are each composed of a single judge elected by the people of the district for 4 years, and paid a salary of \$3 000. These courts have a very wide jurisdiction, but their decisions are subject to review by the higher courts. The districts must be not more than 30 nor less than 20 in number, at the discretion of the legislature. Special courts are provided for the city of New Orleans. New Orleans is the seat of government. Lotteries may be authorized by the legislature until 1895, beyond which time they are absolutely prohibited. The legislature, however, in 1880, exercising the discretion which the constitution allows, passed an act of prohibition. Women over 21 years of age are eligible to any office of control or management under the school laws.

Louisiana was one of the first states to secede from the union, the ordinance of secession having been adopted in convention Dec. 23, 1860, by a vote of 117 to 113. The same convention adopted the confederate constitution and passed amendments to the state constitution conforming it thereto. The people had no opportunity to vote upon the question, except in electing delegates to the conventions. The new state government maintained a nominal existence until near the close of the rebellion, though most of the state, after the capture of New Orleans by admiral Farragut in April, 1862, was in possession of the union forces. The city was handed over to the army, and governed successively by gens. Butler and Banks. The latter, in 1863, made an excursion into the Attakapas region, along the bayou Teche, and succeeded in establishing there the authority of the United States. In the spring of 1864 he ascended the Red river with a large force, but was compelled to retreat after several disastrous battles. In April, 1864, a convention of a portion of the people of the state adopted a new constitution and sought readmission to the union, but congress denied the request. A second convention was held and another constitution adopted in 1868. This constitution was accepted by congress upon certain conditions, which were subsequently complied with; and on July 13, 1868, the government was relinquished by the military and handed over to the civil authorities. During the three years of military occupation which followed the rebellion, there were great political and social disturbances; and after the readmission of the state to the union there were for a time conflicts of authority of a most unpleasant and dangerous character. The electoral votes of Louisiana for president and vice-president of the United States have been cast as follows: 1812, 3 for Madison and Gerry; 1816, 3 for Monroe and Tompkins; 1820, 3 for Monroe and Tompkins; 1824, 3 for Jackson and 2 for Adams for president, and 5 for Calhoun for vice-president; 1828, 5 for Jackson and Calhoun; 1832, 5 for Jackson and Van Buren; 1836, 5 for Van Buren and R. M. Johnson; 1840, 5 for Harrison and Tyler; 1844, 5 for Polk and Dallas; 1848, 6 for Taylor and Fillmore; 1852, 6 for Pierce and King; 1856, 6 for Buchanan and Breckinridge; 1860 and 1864, no vote; 1868, 7 for Seymour and Blair; 1872, 8 not counted; 1876, 8 for Hayes and Wheeler.

LOUISIANA, a city of Missouri, in Pike co., on the Mississippi river, 115 m. above St. Louis, and on the Chicago and Alton railroad, which crosses the river at this point; pop. 3,639; has 10 churches, 2 weekly newspapers, 1 college, 1 public library, a fine public school, public gas works, a paid fire department, 2 foundries, and several tobacco manufactories. It is the seat of an extensive lumber business, and the center of a fine fruit-growing region.

LOUISVILLE (*ante*), the chief city in Kentucky and co. seat of Jefferson co., is situated about midway of the length of the Ohio river; 400 m. from its mouth and 600 from its head at Pittsburg; pop. '80, 123,645. The falls or rapids of the Ohio have here a descent of 27 ft. in $2\frac{1}{2}$ m., affording a fine water-power, not yet much utilized. The Louisville and Portland canal, through which steamboats pass when it is low water over the falls, is 2 m. long; has 3 locks, 480 ft. long and 90 ft. wide; and has a capacity for steamboats of 3,000 tons. It was built by the people of Louisville, the

U. S. government contributing; and since 1874 has passed under the control of the latter, being free to commerce excepting a small charge levied for a fund for repairs. Formerly an unhealthy situation, subjected to malarial and bilious fevers, an adequate system of drainage and sewerage has remedied this; and it is now one of the healthiest of southern cities. It is laid out in broad streets, lined with shade trees in the portion devoted to private residences; the latter being built with lawns and gardens in front, making a most agreeable appearance. A number of important lines of railroad connect Louisville with the northern and southern railroad systems, including the Louisville, Nashville, and Great Southern; Louisville, Paducah and Southwestern; Louisville, Cincinnati and Lexington; and the Jeffersonville and Indianapolis, New Albany and Chicago, Ohio and Mississippi, Louisville and St. Louis, etc. A bridge of stone and iron crosses the river at the head of the falls, having 27 spans, and a total length of 5,218½ ft., and which cost \$2,016,819.63. An important industry is the sugar curing of hams, and pork-packing. This city is also one of the largest markets for leaf-tobacco in the world, exporting enormous quantities to France, Germany, England, and the Dominion of Canada. There is also a very large and growing manufacture of cigars, 86 manufactories having made, in 1874, nearly 14,000,000 cigars. The manufacture of whisky is also an enormous business in Louisville, while it is the point of distribution for the excellent and popular whiskies made in the Kentucky distilleries. Other important manufactures are the Louisville cement, leather, furniture, iron pipe, etc. The city has an efficient paid fire department, with telegraph and signal system. An adequate police force, comprehensive street railway system, and excellent system of public schools, with its other manifest advantages, combine to place Louisville on a par with the other well-constructed and well-governed cities of the world.

LOURDES, a t. of s. France, department of Hautes-Pyrénées, on the right bank of the Gave-de-Pau, 24 m. s.e. of Pau; pop. 4,577. It is at the base of an almost inaccessible rock about 500 ft. high, on which is a fortress formerly possessed by the counts of Bigorre, but now used as a prison. The place was fortified by Julius Cæsar. Remains of Roman fortifications are found, and some curious grottoes in the vicinity. When the English held it in the 14th c., it was the center of their military operations, but after the treaty of Bretigny in 1460 it was evacuated by them. Manufactures of handkerchiefs and flax, and a general trade in agricultural produce, are carried on. It is a noted place of pilgrimage among Roman Catholics on account of the alleged appearance of the Virgin Mary to two girls, Feb. 14, 1858. In 1872 about 20,000 persons resorted to the grotto of the Virgin Mary. It is alleged that many miraculous cures have been wrought in answer to prayers offered at this shrine. In some, at least, of the many instances alleged, the fact of wonderful healing seems to be authenticated: the explanations of the fact vary greatly, according to the scientific or religious theories of the critic. One of the common explanations has been that the quickening of hope and imagination in certain susceptible natures has effected a cure by the operation of purely natural causes. This evidently leaves room for those who believe in healing by the power of prayer, to say that prayer is by a natural law the stimulant of hope; and that it in no wise derogates from the power of prayer to say that its place among the forces by which God governs the world is so sure that his answers to it flow along the lines of natural law. But perhaps the distinction between natural and supernatural may need to be revised.

LOUVERTURE. See TOUSSAINT, FRANÇOIS DOMINIQUE, *ante*.

LOUVET DE COUVRAY, JEAN BAPTISTE, 1760-97; b. Paris; son of a paper merchant; of moderate education. Before the revolution of 1789 he achieved a reputation by the publication of a licentious romance, the fashion of its time. He entered with ardor as a satirical writer into the politics of the revolution. His *Revue des Armées blanche et noir*, a satire on the nobles and clergy, has survived. That was followed by a romance, entitled *Émilie de Vermont*, as remarkable for its purity as his first work for the contrary. In 1790 he published a pamphlet entitled *Paris Justifié* in reply to strictures of the French *émigrés* on the excesses of the revolution. He then became a member of the Jacobin club, where he was conspicuous as an orator, and edited the journal of the Jacobins. He had the boldness to attack Robespierre in the club in 1792, and his name was stricken from the list of members by that despot. He joined the Girondists in the convention, and his speeches at this stage of the revolution were remarkable for eloquence and daring defiance of the Jacobins. His apostrophe of accusation against Robespierre in the convention is considered the masterpiece of that exciting session. Mme. Roland classes it with the great efforts of Cicero. But the Robespierre party triumphed; Louvet was doomed to the guillotine, escaped, and hid in the mountains—tracked like a beast. After the fall of Robespierre he returned to the convention, was made president of the subsequent assembly, and member of the committee of public safety. The last year of his life was embittered by the slanders of the party of reaction, and his own principles were modified by the desire to promote the speedy repose of France.

LOUVRE, PALACE OF THE, the extensive buildings in Paris inclosing a quadrangular square at the e. end of the court of the palace of the Tuileries, and now connected with the latter. They are on the n. bank of the Seine, in the center of the city. The s.

façade is on the quay of the Seine called *quai du Louvre*, the n. on the *rue Rivoli*, the e. on the *rue du Louvre* facing the old church of *St. Germain les Auxerrois*, and the w. facing the magnificent, recently built façades of the palace of the Tuileries. The site is supposed to have been originally a hunting rendezvous and king's castle. History does not reach back of the time when it was used as a royal habitation. A "new tower" was erected in the center of the court in 1204, and used as an arsenal and prison. Francis I. took it down in 1527 because it was unsightly and darkened the courtyard; Charles V. had previously made some additions, among them a library room with 959 vols., the germ of the present bibliothèque nationale, with its 3,300,000 volumes. When Francis I. entertained Charles V. in 1539, he endeavored to disguise the bad condition of the old palace inside and out by temporary walls, repairs, and furniture; but was so dissatisfied with the result that he decided on its entire reconstruction on a new plan. The old Gothic edifices in the midst of fortified towers and prison walls were razed, and the present design of the quadrangular inclosure was adopted. The old court inclosed about 400 ft. square, and the inclosing palaces have 4 outer façades, 538 ft. and 576 ft. long, respectively. The w. side was built after designs by Pierre Lescot, mostly in the reign of Francis I. Henry II. commenced and Henry IV. finished the long gallery w. of the s.w. corner of the original quadrangle, with its main façade on the Seine. This is not properly a part of the Louvre, but a connecting link between the old and distinct palatial groups of the Louvre and the Tuileries. Being first connected with the Louvre, it has taken its name. It was completed in 1608, and is still one of the most ornate buildings in France. The sculptures of Jean Gougon in the friezes of the façade upon the Seine are the most exquisite examples of architectural sculpture in existence. Louis XIII. about 1624 had the w. side of the quadrangle completed. Under Louis XIV. the s. side was first completed; and then, by order of Colbert, architects were requested to send in designs for the e. side. The most beautiful design proved to be that of a physician, an amateur architect, Claude Perrault. Fortunately, its beauty secured its adoption, and that façade is now one of the classic models of the world. The e. façade was begun in 1665 and finished in 1670, and is known as the colonnade of the Louvre. It is 555 ft. long and 90 ft. high. But the edifice, of which it was only the façade, was not finished at that time. Louis XIV. concentrated all his extravagance on Versailles, and for many years this most noble portion of the Louvre was roofless, and going to destruction. Its basement story was used for stables, and its upper portions were temporarily covered to make rooms for artists and employees of the court. "It was a grand free hotel, where each one made his bed in his own fashion, and looked out for himself." In 1754 the e. colonnade and the façade now fronting the *rue Rivoli* were encumbered with temporary constructions that almost shut them from view. Louis XV. was induced to order their demolition, and to finish the designs that Perrault had conceived. But it was not done when the revolution of 1789 opened. The entire place on the e. and n. was still almost hidden behind the crowd of houses built against and in the midst of the unfinished palace buildings. Hills of rubbish encumbered the court. This remained the condition of this noble building until the last years of the first republic, when the work of clearing away the parasites was begun. When Napoleon's victories in Italy gave him the spoils of its works of art in the beginning of the present century, he ordered the restoration and completion of the buildings, and made them the repositories of the art works of France. The façade facing the court to the w. was remodeled and finished in his reign. He also contemplated the work, subsequently done by Napoleon III., of connecting the Tuileries with the Louvre by a continuous line of palaces on the n. and s. sides. Fortunately, he executed but a small part of the project, and that after designs so inferior to other parts that they still stand between exquisite examples of architectural art on each side, which preceded and succeeded them, as marplots in the midst of that aggregation of beautiful palaces. The government of Louis XVIII. and Charles X. continued the work of finishing the interior of the Louvre. In the reign of Louis Philippe the plan of connecting the Louvre with the Tuileries was agitated. M. Thiers demanded 100,000,000 francs for this and a mass of other work which he desired to have undertaken. Fourteen millions was the sum named for the completion of the Louvre and the Tuileries. It was refused. Louis Philippe gave the project little support. When he was deposed in 1848, the provisional or republican government at once began the great work. Thiers and gen. Cavaignac secured the passage of a law which authorized the work subsequently pushed to completion by Napoleon III. The plan, by M. Visconti, was the same which, with slight modifications, has been made to redound almost exclusively to the credit of the emperor; though fully conceived and entered on before he was in the government. Yet it must be conceded that it is doubtful if such magnificent additions could have gone forward to completion under a government more popular and liable to more frequent changes in legislation. In connection with the grand avenues which he projected and completed, this work of connecting the Tuileries and the Louvre is the most splendid monument of expenditure in ornamental construction of modern times. The cost has probably been not less than \$15,000,000. It was fairly underway in 1854, and completed in 1859. The palaces of the Louvre and the Tuileries combined, with their inclosed courts, cover about 60 acres.

The museums and galleries of the Louvre, now the most extensive and the choicest collection of art works in the world, have acquired nearly all their greatness within our

own century. The nucleus was made by the taste and liberality of Francis I., who not only appreciated, but gathered the artists and art works of all countries around him. But their works were mostly assembled at the palace of Fontainebleau. Colbert, in the reign of Louis XIV., made immense additions; all of which, remarks a writer of that time, were imprisoned by the royal *roué* in the palaces of Versailles, but "ought to be ranged in beautiful order in the great halls of the Louvre, where they might be exposed to the admiration and joy of the French and the curiosity of strangers, and become a source of study and emulation to a French school of art." It has taken two centuries to effect the accomplishment of that wise advice. Before the time of Louis XVI. the galleries of the Louvre had become the principal museum of valuables, both of mechanical and art works: and the seat of the royal academies of sciences, belles-lettres, architecture, painting, and sculpture. In 1775 it was proposed to gather all the masterpieces of art belonging to the kings in the long gallery, but it was at Versailles, instead, that they continued to accumulate. The republic of 1791 broke up this royal selfishness. The immense art resources of France were brought out of the royal catacombs, collected, systematized, and exposed to public view in the great halls of the Louvre. It was during the fermentation and the horrors of the great revolution of 1791 that the present national museum was ordained, and a commission appointed by the legislative assembly to collect all works of greatest value and beauty from the royal galleries and transport them to the Louvre, to form the museum of the republic. At a moment when France was almost crushed by a foreign coalition and in the heat of internal turbulence, Roland, then minister of the interior (1792), was instructed to plan the organization of that vast museum. The *muséum Français*, afterward called *musée central des arts*, was opened in 1793. But it was a heterogeneous mass until many years after. In 1798 it was enriched by the pillages of Napoleon I. in Italy. Since that time each new government of France has been ambitious to enlarge and perfect all departments of its museums. There never have existed museums comparable in extent or perfectness of arrangement to those of the Louvre at the present time.

LOVE-FEASTS (AGAPÆ, *ante*), are now celebrated, 1. by the Moravians, in strict accordance with the primitive custom and on various occasions, generally in connection with a solemn festival, or preparatory to the communion. Hymns are often used that have been composed and printed expressly for the occasion. In the course of the meeting, a simple meal of biscuit and coffee, or tea, is served, of which the congregation partake together. In some churches the minister makes an address at the close. 2. Wesley introduced the observance among the Methodists, appointing one evening in each quarter for the men, another for the women, and a third for both together. The food is only plain cake and water. Only members of the church attend, and admission is secured by tickets. The same rule is nominally established in the Methodist-Episcopal church, but is not strictly enforced, members of the congregation also being admitted. The feast is celebrated at the quarterly conference, under the charge of the presiding elder, or, in his absence, of the pastor of the church. The service begins with reading the Scriptures, singing, and prayer. During the distribution of bread and water, of which all partake, persons so disposed relate their Christian experience. A report concerning the prosperity of the church is made by the pastor, and the names are read of those who have been received, excluded, or dismissed by certificate, of those who have died, and of those who have irregularly withdrawn. 3. Love-feasts after the primitive order are held in some, at least, of the Baptist missionary churches. At Berlin, Prussia, where they are held quarterly, they serve as an occasion for general social assembling in which coffee and cake take the place of bread and water.

LOVEJOY, ELIJAH PARISH, 1802-37; b. in Albion, Me.; graduated at Waterville college in 1826; went to St. Louis, Mo., where he was engaged first as a teacher, then as a political editor; studied theology at Princeton, and in 1833 was ordained a Presbyterian minister; returned to St. Louis and became editor of the *Observer*, a religious journal. Antislavery agitation was then rife throughout the free states, and Mr. Lovejoy, while disclaiming any connection with the abolitionists, was yet imbued with the old-time New England hostility to slavery and with an earnest zeal for the freedom of the press. Occasional paragraphs in the *Observer*, evincing a firm but moderate opposition to slavery, gave great offense to the people of St. Louis. Censured and menaced for this exercise of the freedom of speech in a slave-holding community, he reminded his censors that the blood in his veins was kindred to that which flowed at Lexington and Bunker Hill, and declared that he could not consent to wear a chain. In the spring of 1836, a negro criminal was taken out of the St. Louis jail by a mob, chained to a tree, and burned to death. An attempt being made to indict the authors of the crime, judge Lawless, in his charge to the grand jury, laid down the doctrine that when a mob is hurried by some "mysterious, metaphysical, and almost electric frenzy," to commit a deed of violence and blood, the participators therein are absolved from guilt, and therefore not proper subjects of punishment. If the jury should find that such was the fact in the case before them, then, said the judge, "act not at all in the matter; the case transcends your jurisdiction; it is beyond the reach of human law." Mr. Lovejoy's comments upon the charge of judge Lawless aroused deep indignation in St. Louis, in consequence of which the office of the *Observer* was destroyed by a mob. He thereupon

determined to remove his paper to Alton, Ill., but his press on being landed there was broken into fragments by lawless men. The citizens of Alton reimbursed him for his loss, and another press was procured. In Aug., 1837, the office was invaded by a mob and the press and types destroyed. Another press was brought to the place, but before it could be set up it was broken in pieces and the fragments thrown into the Mississippi. A strong body of law-abiding citizens, who felt that it would not be right to submit to the dictation of a mob, rallied around Mr. Lovejoy and offered to procure for him still another press. A convention, embracing men of the highest character from different parts of Illinois, met at Upper Alton and resolved that "the cause of human rights, the liberty of speech and of the press, imperatively demand that the press of the *Observer* be re-established at Alton with its present editor." The pro-slavery party were equally determined that the paper should be suppressed. At this critical juncture a public meeting was called in Alton to consider whether the publication of the *Observer* there should be any longer permitted. At this meeting Mr. Lovejoy appeared and made an address. "I am impelled," he said, "to the course I have taken because I fear God. As I shall answer to him in the great day, I dare not abandon my sentiments, or cease in all proper ways to propagate them. I am fully aware of all the sacrifice I make in here pledging myself to continue the contest to the last. I am commanded to forsake father and mother, wife and children, for Jesus's sake; and as his professed disciple, I stand pledged to do it. The time for fulfilling this pledge in my case, it seems to me, has come. Sir, I dare not flee away from Alton. Should I attempt it, I should feel that the angel of the Lord, with drawn sword, was pursuing me wherever I went. It is because I fear God that I am not afraid of all those who oppose me in this city. The contest has come here, and here it must be finished. Before God and you all I have pledged myself to continue it, if need be, till death; and if I fall, my grave shall be made in Alton." This address had a powerful effect even upon some of his opponents, and for a time it was hoped that the mob could not be rallied for the commission of further violence; but when it became known that another press had arrived, an intense excitement followed. The mob was warned of the event by the blowing of horns. The mayor superintended the transfer of the press to a warehouse, and aided in storing it away. Friends of liberty and order volunteered to watch and defend it. Mr. Lovejoy could not consent that his friends should incur, for his sake, dangers not shared by himself, and therefore he joined the party of defense. On the evening of Nov. 7, 1837, the watchers armed themselves and entered the warehouse where the press was stored, resolved to defend it, if necessary, with their lives. No attack having been made at 9 o'clock, most of the defenders retired to their homes, leaving but a dozen or so, among whom was Mr. Lovejoy himself, on guard. Near midnight a mob of 30 or 40 men issued from the drinking-shops in the vicinity prepared for deeds of violence and blood. They threw stones at the warehouse, smashed the windows, and fired several shots; and then they set up the cry, "Burn them out." Preparations were making to fire the building, when the mayor, who had pursued a wavering course from the beginning, came to the spot, and consented to bear a message from the mob to Mr. Lovejoy and his friends, to the effect that if they would surrender the press they should not themselves be injured. These terms were rejected, and then went up the cry, "Fire the building, and shoot every abolitionist as he leaves." The roof being set on fire, five of the defenders rushed out, fired upon the mob, and returned. Mr. Lovejoy and two others next stepped out, and were fired upon by rioters concealed behind a pile of lumber. One of the shots was fatal to Mr. Lovejoy, who lived only long enough to return to the counting-room, where, after exclaiming, "I am shot," he fell down and expired. The event caused great excitement throughout the country, some defending, others excusing, and many more denouncing Mr. Lovejoy. William Ellery Channing was foremost among those who held that he was entitled to the honors of a martyr to the freedom of speech and of the press; but there were men high in influence and public station who did not hesitate to declare that he had "died as the fool dieth." The grave of Mr. Lovejoy, which was made upon a bluff overlooking the Mississippi, was unmarked for many years, but a monument, with an appropriate inscription, now stands above it, reminding those who visit it of the sacrifices which it has cost to maintain in this republic the freedom of the press.

LOVEJOY, OWEN, 1811-64; brother of Elijah P.; b. in Albion, Me.; educated at Bowdoin college, and removed to Alton, Ill., where, after witnessing the martyrdom of his brother, he knelt upon his grave and vowed eternal war against slavery. A man of powerful physique, intense feeling, and great magnetism as a speaker, he preached and lectured against slavery with a passionate energy that carried the people with him. In 1838 he became pastor of a Congregational church in Princeton, Ill., where he distinguished himself by the boldness of his attacks upon slavery from the pulpit. In 1856 he was elected to congress, where he took a leading part in the conflicts that preceded the rebellion. Repeated attempts were made to intimidate and silence him, and he was denounced as one who, in assisting slaves to escape, violated the constitution which he had sworn to support. More than once he was in danger of assassination. His reply to these denunciations was to proclaim that he had aided and would aid every fugitive slave that came to him for help. Died, Brooklyn.

LOVELACE, RICHARD, 1618-58; b. England, educated at Charterhouse school and Oxford. For presenting to the "long" parliament a petition from his native county, in favor of Charles I., he was imprisoned, and released only on giving bail in the sum of £40,000. In 1646 he commanded a regiment in the French army before Dunkirk, where he was dangerously wounded; and it is said that Lucy Sacheverel, the "Lucasta" of his poems, upon a false report of his death married another person. On his return to England in 1648, he was again imprisoned and did not regain his liberty till after the king's death. He had spent his fortune in the king's service; and from being, as Anthony-a-Wood says, "the most beautiful person eye ever beheld," "became very poor in body and purse." He had published, in 1649, *Lucasta, Odes, etc.*, containing many spirited lyrics, and he was also the author of a comedy called *The Scholar*, and a tragedy, *The Soldier*, which have not been preserved.

LOVELL, JAMES, 1737-1814; b. Boston; graduated at Harvard in 1756; was usher of the Boston Latin school under his father, John. When the people of Boston, April 2, 1771, celebrated the first anniversary of the British massacre in that city, Mr. Lovell was the chosen orator of the occasion. After the battle of Bunker Hill he was imprisoned by gen. Gage, but exchanged in 1776. From 1776-82 he was a member of the continental congress; from 1784-88 receiver of taxes; in 1788-89 collector of the port of Boston; from 1790-14 naval officer. He was also for a time master of the North grammar school in Boston. Died in Windham, Me.

LOVELL, JAMES, 1758-1850; graduated at Harvard in 1776; was adjutant in Jackson's Massachusetts regiment, 1776-79, and of Lee's "legion" in the southern campaign. He took an honorable part in many of the battles of the revolution. Died at St. Matthews, S. C.

LOVELL, JOHN, 1710-88; b. Boston; graduated at Harvard in 1728; was appointed usher of the Boston Latin school 1729, and master in 1734; held the latter position until 1775, when the school was suspended by the siege of Boston. He was familiarly called "master Lovell" during this long period, and among his pupils were many of those who became prominent in the revolution. He was an accomplished classical scholar, and, though a rigid disciplinarian, highly popular as a teacher. At the dedication of Faneuil hall in 1743 he was the chosen orator. He was, however, a loyalist, and left Boston for Halifax with the British troops in 1776. Died at Halifax. His portrait is in the gallery of pictures at Harvard college.

LOVEWELL, JOHN, b. N. H. near the close of the 17th c.; d. 1725; son of John, an ensign in the army of Cromwell, who is said to have lived to the age of 120 years. In 1724-25 he was engaged as a captain of volunteers in several successful military expeditions against the Indians, but was killed in the latter year at the head of his company in an engagement with a body of Indians led by the chief Paugus. "Lovewell's pond," in New Hampshire, derived its name from the hero of that fight. The battle has been commemorated in a poem by Enoch Lincoln, a member of congress from Maine, delivered at the celebration of its centennial anniversary in 1825, and also in *The Expedition of Captain Lovewell*, by F. Kidder, published in 1865.

LOW, ABIEL A., b. Salem, Mass., 1811; received a common-school education, and at an early age turned his attention to commercial pursuits. Taking up his residence in New York, he soon became a successful and prominent merchant. He has long been a member, and at different times president, of the chamber of commerce. He is still in business in New York, having his residence now, as for many years, in Brooklyn, and is greatly esteemed as a public-spirited citizen, munificent in his contributions to various objects of public prosperity and to institutions of charity.

LOW, FREDERICK F., b. Frankfort, Me., 1828; went to California in 1849, and after being engaged for a time in mining operations, became a merchant in San Francisco, then a banker at Marysville; was a republican member of Congress 1861-63, collector of the port of San Francisco 1863-64, governor of the state 1864-68, and minister to China 1869-72.

LOW COUNTRIES. See NETHERLANDS, *ante*.

LÖWE, SOPHIE; 1815-66; a German singer who appeared in opera in Vienna in 1832, and made a great sensation, both by her superb voice and her showy beauty. She married prince Frederick of Lichtenstein in 1848, and retired from the stage.

LOWELL (*ante*), a city in n.e. Massachusetts, the terminus of the Boston and Lowell, the Nashua and Lowell, the Stony Brook, Lowell and Andover, and the Framingham and Lowell railroads; 2,587 acres; pop. '80, 59,485. It is one of the largest manufacturing cities in the United States, its industries having been the foundation and subsequent basis of its prosperity. Its natural advantages and facilities for the economical outlay of capital are unsurpassed, and the use made of them is unexampled. The Merrimac river, near the mouth of the Concord river, furnishes its water-power, and affords a charming addition to the landscape as viewed from Belvidere, in the e. portion of the city, a quarter occupied by the wealthiest residents. Along the wide avenue leading from this suburb a view may be obtained of the broad, winding river, the great compactly built factories, like grim stone palaces, their windows refracting the sun's rays with a metallic

luster or revealing the gaslight through myriads of starry panes, the busy toiling city below, and the White mountains gleaming through miles of misty distance, with Mt. Wachusett and the Monadnock in grand relief. It received its city charter in 1836, and is governed by a mayor, a board of aldermen of 8 members, and a common council of 24. It originally comprised the town of East Chelmsford, receiving subsequently parts of Dracut and Tewksbury. It is well paved, well drained, and well lighted with gas. It has a fine city hall, other public halls of convenient size, a city library of 17,000 volumes, a mechanics' library of 13,000, a court-house, 7 national banks with an aggregate capital of \$2,350,000, 6 savings banks, 2 hospitals, 2 insurance companies, a Roman Catholic orphan asylum, an old ladies' home, a young women's home, a good fire department with an electric fire alarm, a well organized police force, and a horse railroad. It was named in honor of Francis C. Lowell of Boston. Its water-works, finished in 1873 and costing \$1,500,000, supply it with pure water. The river at this point has a fall of 33 ft., and the water-power is owned by a company chartered in 1792, called the *Proprietors of the Locks and Canals on Merrimac River*, which purchased the canal privilege in 1821, adding to it and constructing another canal in 1847, the first cotton mill being erected in 1822. This company lease at the present time water-power equal to 10,000 horse-power for purposes of manufacture. Its water-power on the Concord river, leased by the Wamesit company is equal to 500 horse-power. The entire capital involved in its manufactures, and controlled by 12 companies, is estimated at \$16,000,000, employing 16,000 operatives, of which 10,000 are females, producing 2,660,000 yds. of cotton weekly, of woolen cloth 60,000, carpeting 37,500. Number of shawls weekly, 2,500; dozens hosiery weekly, 16,800; lbs. of cotton consumed, 780,000; of clean wool, 152,500; yds. dyed and printed annually, 64,951,200. It has 80 mills, and over 678,521 spindles, looms 15,189, governed by 9 corporations, making use of 50 steam engines, of 6,188 horse-power in addition to the water-power. Among the largest corporations is the Merrimac manufacturing company having 5 mills and print works, running 158,464 spindles and 3,945 looms, employing 1800 females and 900 males. The consumption of cotton is 148,000 lbs. per week, making 830,000 yds. per week, and dyeing and printing 900,000 yds. Forty engines, equal to 3,800 horse-power, are used, and 6 turbine wheels to carry the water-power. Other corporations are the Lowell manufacturing company, the Tremont and Suffolk mills, the Lawrence manufacturing company, and the Massachusetts cotton mills; the smallest capital employed being \$1,200,000, and the largest \$2,500,000. They produce prints, drillings, cotton sheetings and shirtings, carpets (made by the Lowell manufacturing company), ingrain, Brussels, and Wilton, as beautiful and as durable as the best French and English make. They employ 1700 hands, 600 females in 1 spinning mill, 3 carpet mills, and 1 fine worsted mill; consuming 70,000 lbs. of wool and making 48,000 yds. of carpet per week, the machinery being run by a 450 horse-power Corliss engine. The buildings and property connected with these mills cover 10 acres. Other manufactures are serges, cassimeres, and beavers. The Lawrence company has 550 knitting machines, producing 12,000 doz. of cotton and merino hosiery weekly. The Appleton company added a new mill in '74. Each company owns the large boarding-houses, which are exhibited to the tourist as models, being built for the exclusive use of the operatives. They have also a hospital, where the sick operatives receive free attendance, if unable to pay. There are manufactories of edge tools, files, screws, machinery, boilers, fixed ammunition and cartridges, paper, hair felt, elastic goods, carriages, furniture, pumps, hydraulic presses, bobbins, and chemicals. Among its iron works are the Lowell machine shops, incorporated 1845, with a capital of \$600,000, employing 1250 hands; the American bolt company, the Swaine turbine company, and R. Kitson's cotton machinery manufactory. Patent medicines are manufactured by Dr. J. C. Ayer & Co., printing 10,000,000 almanacs annually. The Lowell bleachery, with a capital of \$300,000, employing 400 hands, dyeing 15,000,000 yds., and bleaching 10,000,000 lbs. annually. The city has beautiful public squares, and in the midst of the city's turmoil and traffic stands the monument to Ladd and Whitney, who were killed by a mob while marching through Baltimore with the 6th Mass. volunteer militia, April 19, 1861. The female operatives of its mills formerly supported a periodical called the *Lowell Offering*, famous as an exponent of the intelligence, thrift, and ambitious self-respect of the working-girl of Lowell.

LOWELL, CHARLES, D.D., 1782-1861; b. Boston; son of John (1743-1802); studied at Andover and graduated at Harvard in 1800; studied law and afterwards theology; spent some time abroad, studying for a while in Edinburgh; in 1806 was settled over the West church (Congregational) in Boston. When the controversy between the orthodox and the Unitarians arose, he refused to join either party, or to take a sectarian name, and did what he could to prevent a division. He was distinguished rather for benevolence and sweetness of heart than for learning. He published two volumes of sermons, besides several occasional discourses. He was the father of James Russell Lowell, poet and essayist, the present American minister at the British court.

LOWELL, CHARLES RUSSELL, 1835-64; b. Boston; son of Charles, D.D.; was a pupil of the Boston Latin school, and graduated with the highest honors at Harvard in 1854. He visited Europe, spending considerable time there in study and travel, and upon returning to the United States engaged in business. He left his position as super-

intendent of iron-works in Maryland to enlist in the war for the suppression of the rebellion. He served in the peninsular campaign as capt. of the 6th U. S. cavalry, and in n. Virginia and Maryland on the staff of gen. McClellan; was appointed col. of the 2d Massachusetts cavalry, and stationed for a time near Washington. He was next assigned to the command of a brigade, and rendered important service against Mosby's guerrilla bands, and in the resistance and pursuit of the confederate army under gen. Early from before Washington in 1864. He was with Sheridan in the Shenandoah valley, where his services were conspicuous and brilliant. Having been wounded early in the battle of Cedar creek, he refused to retire from the field, and in the moment of final victory received a hurt which proved mortal. As a recognition of his valor he was made brig. gen. of volunteers. Died at Middletown, Va.

LOWELL, FRANCIS CABOT, 1775-1817; b. Boston; son of John (1743-1802); graduated at Harvard in 1793; was a leading merchant in Boston, and among the first in the United States to engage in the cotton manufacture. The city of Lowell was named in his honor. Died in Boston.

LOWELL, JAMES RUSSELL (*ante*), D.C.L., LL.D., graduated at Harvard law school in 1840, and for a short time practiced at the bar in Boston. He visited Europe in 1872, remaining two years, and was honored by being made the recipient in person of the degrees of D.C.L. at Oxford and LL.D. at Cambridge, England. After his return to America, Dr. Lowell took a warm interest in public affairs, and in 1876 was a delegate to the republican national convention. In June, 1877, he was appointed by president Hayes minister to the court of Spain, from which post he was transferred, in 1880, to the court of St. James; the appointment being received with signal expressions of gratification on the part of all classes of the British people, among whom Mr. Lowell's writings are even more popular than among his own countrymen. He married in 1844, MARIA WHITE, of Watertown, Mass. (1821-53), a gifted and accomplished woman. Besides translating with elegance and exactness from the German, she was the author of a number of poems of more than ordinary merit, a collection of which was privately printed in Cambridge, Mass. (1855), after her death. In her memory Longfellow wrote his beautiful poem entitled *Two Angels*, published in *Putnam's Monthly*, April, 1854:

'Twas at thy door, O friend, and not at mine,
The angel with the amaranthine wreath,
Pausing, descended, and, with voice divine,
Whisper'd a word that had a sound like death.

Then fell upon the house a sudden gloom,
A shadow on those features fair and thin,
And softly from that hush'd and darken'd room,
Two angels issued, where but one went in.

LOWELL, JOHN, LL.D., 1743-1802; b. at Newbury, Mass.; graduated at Harvard in 1760; was admitted to the bar in 1762, and in 1777 removed to Boston. He was a member of the continental congress in 1782-83; judge of the court of appeals from 1783 to 1789, of the U. S. district court from 1789 to 1801, and of the U. S. circuit court from 1801 till his death in 1802. The clause in the Massachusetts bill of rights which was interpreted as making slavery in that state illegal was written by him.

LOWELL, JOHN, LL.D., 1769-1840; son of John (1743-1802); b. at Newburyport, Mass.; graduated at Harvard in 1786; admitted to the bar in 1789; took up his residence in Boston, became eminent as a lawyer, and was an active, honored, and public-spirited citizen, but refused to take office. He was the author of many papers and pamphlets upon the current topics of his time.

LOWELL, JOHN, 1799-1836; b. Boston; son of Francis Cabot; educated at Harvard and Edinburgh; was a man of fine literary attainments and scholarly tastes; spent much time in foreign travel, and died at Bombay, India, leaving by will a legacy of \$250,000 to found in Boston the "Lowell institute," which provides annually for free courses of lectures upon important subjects. This lectureship has supplied a platform for some of the most learned and vigorous thought of the eastern section of the United States.

LOWELL, MARY. See PUTNAM, MARY LOWELL.

LOWELL, ROBERT TRAILL SPENCE, D.D., b. Mass., 1816; educated at Harvard; in 1842 ordained in the church of England; and settled at Bay Robert, Newfoundland; Newark, N. J.; and Duaneburg, N. Y. He was for a time principal of St. Mark's school, Southborough, Mass., and in 1873 became professor of Latin in Union college. He has published *Fresh Hearts and other Poems*; *The New Priest of Conception Bay*; *Anthony Brade*; and *A Story or Two from an old Dutch Town*. He is a brother of James Russell Lowell.

LOWENTHAL, ISIDOR, 1827-64; b. Posen, Prussian Poland, of Jewish parents; acquired the Hebrew language at an early age, exhibiting an extraordinary aptitude for philological studies. At 17 years of age, without having been to college, he had more than mastered the studies embraced in the college curriculum. He then accepted a mercantile clerkship, intending apparently to devote himself to a business life. He was a radical in politics and member of a liberal club, and a poem which he published in a newspaper having excited the attention of the government, he was constrained to flee to

America. Reaching New York in the autumn of 1846, he was shortly afterward reduced to the necessity of becoming a street peddler in order to earn his bread. In these circumstances he found a friend in the Rev. S. M. Gayley, of Wilmington, Del., by whose means he gained a position as teacher of German and French in Lafayette college, Easton, Penn. While thus engaged he joined the senior class in the college and graduated in 1848. After this he became teacher of languages in the collegiate school at Mt. Holly, N. J. In 1851 he became a Christian, and in 1852 entered the theological seminary at Princeton, where he took high rank in philology, and wrote several important articles for the *Biblical Repertory*. In 1855 he became a tutor in the college at Princeton, but in 1856 he accepted from the Presbyterian board of foreign missions an appointment as missionary to the Afghans of India. On his arrival in that country he set himself to the task of learning Persian, Cashmiri, Hindustanee, Arabic, and the Afghan languages, and translated into the latter the whole of the New Testament. He had nearly completed a dictionary of that language when he was accidentally killed at Peshawar, a death which was an incalculable loss to missions in the East Indies.

LÖWENTHAL, JOHN JACOB, b. Buda-Pesth, Hungary, 1810; in 1841 was recognized as one of the best chess-players in Europe, and thenceforth was generally the victor in matches with the most renowned masters of the game. In 1849 he was constrained, for political reasons, to leave Hungary, and came to the United States, where he interested himself in his favorite game. In 1851 he went to London to engage in a chess tournament, and became a resident of that city, where he was employed in editing the chess department of several public journals. He also edited the *Chess-players' Magazine*, 1865-67, and superintended the publication of several books on the same subject. He was also for a time secretary of the St. George's and president of the St. James's club. In 1867-69 he published *Transactions of the British Chess Association*.

LOWER, RICHARD, b. Cornwall, 17th c.; educated at Westminster school and Christ church, Oxford; studied medicine under Dr. Thomas Willis. In 1674, in connection with Dr. Willis, he discovered the medicinal waters at Ashop, in Northamptonshire, which on their recommendation, became much frequented. In 1666 he went to London, practiced medicine, and became a fellow of the royal society and of the college of physicians. In 1669 he published his *Tractatus de Corde*. After Dr. Willis's death in 1675, he was at the head of the profession in London.

LOWER EMPIRE. See BYZANTINE EMPIRE, *ante*.

LOWICZ. See LOVICZ, *ante*.

LOWNDES, a co. in s. Alabama, intersected in the e. section by the Mobile and Montgomery railroad, and the Western railroad of Alabama; 900 sq.m.; pop. '80, 31,178—31,099 of American birth, 25,540 colored. It has the Alabama river for its n. boundary, and is drained by a few small creeks. Its surface is slightly undulating and well wooded. It has a fertile soil adapted to the raising of live-stock, barley, oats, corn, cotton, sweet potatoes, and to the production of wool, honey, and sugar-cane. Cash value of farms in 1870, \$2,271,911, numbering 954. Seat of justice, Hayneville.

LOWNDES, a co. in s. Georgia, having the state line of Georgia for its s. boundary; bounded on the n.e. by the Allapaha river, and on the s.e. by one of its branches; 550 sq.m.; pop. '80, 11,049—11,027 of American birth, 5,637 colored. It is bounded on the s.w. by the Little river, and the Ocopilco river; is watered by other small streams emptying into the Suwanee river; and is intersected centrally by the Savannah, Florida and Western railway. Its surface is generally level and sandy. It is covered to a great extent by forests of building timber. Its soil in some localities is fertile, and adapted to stock-raising and the production of cotton, wool, sweet potatoes, sugar-cane, rice, oats, corn, rye, and the products of the dairy. It produced in 1870, 3,600 lbs. of honey. Its water power is utilized to some extent. Seat of justice, Valdosta.

LOWNDES, a co. in e. Mississippi, having the state line of Alabama for its e. boundary, intersected by the Mobile and Ohio railroad very near the w. border, with a branch from Artesia to Columbus; 500 sq.m.; pop. '80, 28,243—28,083 of American birth. It is drained by the Tombigbee river, navigable as far as Columbus, and the Oktibbeha river flowing from the n.w. and crossing the state line to unite with the Alabama river. Its surface is generally level, and has an extensive growth of pine and oak timber, with groves of cypress, elm, and hickory. Its soil is a fertile sandy loam, well adapted to stock-raising and particularly productive on the level river banks. Products are oats, corn, cotton, wheat, wool, and sweet potatoes. Cash value of farms in 1870, \$2,079,973, numbering 805. It had in 1870, 75 manufacturing establishments, employing 368 hands, with a capital of \$376,007, and an annual product of \$412,097. Flour is manufactured, also woolen goods, tin, copper, and sheet-iron ware. Seat of justice, Columbus.

LOWNDES, RAWLINS, 1722-1800; b. West Indies; whence his parents removed to Charleston, S. C., where he rose to eminence at the bar, and in 1766 was made a judge by the crown; in this capacity affirming, with the majority of his court, against the dissenting opinion of the chief-justice, the validity of unstamped public papers. In the dispute between England and the colony, he was strongly committed to the cause of the latter, and while serving in the colonial assembly in 1768, he proposed the erection of a statue to William Pitt, as a mark of gratitude for his services in behalf of the colonies.

In 1775 Lowndes was a member of the committee of public safety, and the next year of the committee charged with drawing up a new constitution for the province, of whose council he became a member. He was elected president of the province, and during his term of office sir Henry Clinton laid siege to Charleston with 12,000 regular troops, and in spite of the efforts of Lowndes, it was captured May 12, 1780. After the close of the war he again entered the legislature, and in the debates upon the adoption of the federal constitution, he was among the bitterest opponents of that instrument, saying in one of his speeches: "I wish no other epitaph then this 'Here lies one who opposed the federal constitution, holding it to be fatal to the liberties of his country.'"

LOWNDES, WILLIAM JONES, LL.D., 1782-1822; b. S. C.; son of Rawlins. His preliminary education was obtained in England, after which he graduated at Charleston college, and entered the bar. After serving four years in the state legislature, in 1810 he was elected to congress, to which he was returned by successive re-elections till his death. He was a republican in his politics according to the party division of his times, and chairman of the ways and means committee, 1818-22.

LOWNDES, WILLIAM THOMAS, 1800-43; b. England, where he carried on the trade of a bookseller. He was an enthusiastic bibliographer, and published two books of standard authority in their department; *The Bibliographer's Manual of English Literature*, 4 vols., 1834; and *The British Librarian or Book Collector's Guide*, 1839. But 11 parts of the latter had been completed when the author succumbed to insanity brought on by pecuniary difficulties.

LOWRIE, WALTER, 1784-1868; b. Edinburgh, Scotland; removed with his parents in 1791 to Huntingdon co., Penn., but soon went to Butler co., which they made their permanent residence. He grew up on his father's farm, and his early education was limited, though his religious training was thorough. At the age of eighteen, he entered upon a course of study with the ministry in view. He studied Latin, Greek, and Hebrew, with great diligence and success. Providential circumstances compelled him to abandon his purpose, and he entered upon other pursuits. Having won the confidence and esteem of the community in which he lived, he was in 1811, at the age of 27, elected to the senate of Pennsylvania, and after serving the state in this office for seven years, he was sent to the senate of the United States. His term of service expiring in 1824, he was made secretary of the senate, and held the office 12 years. This he might have held for life, as others had done, and many members of the senate without distinction of party urged him to retain the place. In the senate were Webster, Clay, Calhoun, Randolph, Benton, and other illustrious men, when the measure known as the *Missouri Compromise* was earnestly discussed. Among these was Lowrie, whose integrity won their confidence, while his sagacity and practical judgment led them to seek his advice and rely upon his opinions. One who was present at the time has said that he was regarded by the senators who knew him best as an authority upon all questions of political history and constitutional law. His religious influence in congress was great. He with Frelinghuysen and others founded the congressional prayer-meeting, and was one of the founders of the congressional total-abstinence society. In 1836 he was elected corresponding secretary of the Western foreign missionary society, and in 1837 of the board of foreign missions of the Presbyterian church, which office he held for 32 years. While in the senate he was a member of the committee on Indian affairs, and became deeply interested in the fate and evangelization of the tribes, whom when secretary he visited, and whose interest he zealously and wisely labored to promote. Mr. Lowrie's oldest son John, who succeeded his father as secretary, and now occupies that position, was three years a missionary in India. His third son Walter was a missionary for five years in China, and was thrown into the sea by pirates. His fourth, Reuben was also in China, and after six years' labor fell a sacrifice to constant work and the enervating effect of the climate.

LOXA. See LOJA, *ante*.

LOXODON, a genus of elephants of which the present African elephant is the type, and proposed by F. Cuvier, because he thought the differences between the only living species, African and Asiatic, are more than those which should separate mere species of one genus. The name loxidon refers to the lozenge-shaped lamellae seen upon the grinding surfaces of the molar teeth, the structure being intermediate between that found in the molars of the Indian elephant and that found in the molars of the extinct genus *stegodon* of the upper miocene formation of India.

LOYSON, CHARLES (*ante*). PÈRE HYACINTHE, b. France, 1827, was educated at Pau and in the theological school of St. Sulpice until the age of 22, when he became a priest. After ten years of priesthood and two of novitiate in the Carmelite convent in Lyons, he joined that order. He preached in Bordeaux and other French cities, attracting general public attention by his eloquence and enthusiasm, and in the summer of 1865 at the Madeleine and at Notre Dame in Paris. Having become notorious for the enunciation of sentiments more liberal than the doctrines of the church permitted, he was obliged to explain his orthodoxy before the pope. He succeeded in clearing himself temporarily, but again employed language which was considered subversive of church discipline, and he was threatened with the major excommunication and forbidden to preach in Notre Dame. In a letter which Loyson addressed to the general of the bare-

footed Carmelites at Rome he wrote: "It is my profound conviction that if France in particular and the Latin races in general are given up to social, moral, and religious anarchy, the principal cause is not Catholicism itself, but the manner in which Catholicism has for a long time been understood and practiced." As this statement, which was made public, was an attack on the alleged abuses in the church, it produced a profound sensation, and tended to connect the author with the antagonists of the papacy. In the autumn of 1869, the year of his enunciation of the new conclusions which he had reached, Loyson paid a visit to America, and was warmly welcomed by distinguished Protestants and liberal Roman Catholics in the United States. In the following year he was released from his monastic vows by the pope, and soon after preached in Rome. On Sept. 2, 1872, he was married in London to Mrs. Emily Jane Meriman, the widow of an American gentleman. The abbé Loyson was elected curé of Geneva, but resigned in 1874. He delivered lectures in London in 1876, and a translation by his wife of some of his letters, fragments, and discourses was published in London in 1874.

LUALABA RIVER. See Congo, *ante*.

LUBBOCK, Sir JOHN, b. England, 1834; son of John William, who took him into partnership in his bank in London in 1856, and upon whose death, in 1865, sir John succeeded to the baronetcy. He was a member of the international coinage commission, the public school commission, and the advancement of science commission. In 1870 he was returned to parliament, and re-elected in 1874 and again in 1880. In parliament he carried through a number of important measures, such as the falsification of accounts bill, the bank holidays act, and the absconding debtors act. But he has most distinguished himself by his inquiries into the condition of ancient man, and his writing on zoological subjects. Sir John has published *Prehistoric Times; Origin of Civilization; British Wild Flowers; Origin and Metamorphoses of Insects; Scientific Lectures; Monograph of the Thysanura and Collembola*; and a volume of political and educational addresses. He is a fellow of the royal, Linnæan, and many other learned societies.

LUBBOCK, Sir JOHN WILLIAM, 1803-65; b. England, educated at Cambridge, and succeeded to the baronetcy in 1840. He devoted himself to astronomical research, and contributed many papers to the proceedings of the royal astronomical society and the royal society, of which latter he was elected a fellow at the age of 26. A series of his papers in the *Philosophical Transactions* was published in 1833, in book form, under the name, *On the Theory of the Moon*, and other papers were separately issued as tracts, such as an *Elementary Treatise on the Tides* and *Classification of the Different Branches of Human Knowledge*. He also pursued investigations into the theory of mathematical notation and meteorology.

LÜBKE, WILHELM, b. Westphalia, 1826; professor of architecture at Berlin, of archæology at Zürich, and since 1866 of the history of art at Stuttgart. Among his works are an *Introduction to the History of Ecclesiastical Art in the Middle Ages; Mediæval Art in Westphalia; History of Architecture; Studies in the History of Art*; and *An Outline of the History of Architecture*, which has been translated into English by Clarence Cook.

LUBLIN, a government of Russia, in Poland, comprising the circles of Lublin, Chelm, Josefow, and Zamoski, formerly belonging to Galicia, and ceded by Austria in 1810 to what was then the duchy of Warsaw. It lies between 50° 17' and 51° 43' n. lat., and 21° 45' and 24° 7' e. long.; 11,975 sq. m.; pop. 738,426. On the n. it has Podlachia, on the e. Volhynia, Galicia on the s., and on the w. Sandomir, from which it is separated by the Vistula; the river Bug dividing it from Volhynia, and the Wieprz from Podlachia. It is heavily wooded and has extensive morasses; but there are tracts of good arable land and excellent pasturage, with a fine breed of cattle. The only metal found is bog-iron. Capital, Lublin.

LUBRICATION, the application of a substance to a surface for the purpose of making it smooth. This substance, which is called a lubricant, may be either a liquid, a semi-liquid, or a solid. Plumbago, or black-lead, is in most common use as a solid lubricant, but powdered soap-stone, or talc, is used for many purposes, as, for instance, by shoemakers upon the inside of the heels of boots and shoes to facilitate the pulling on. When it is desired to have a rope or cord slip over a bearing, as a pin, or a pulley which refuses to turn, it is usual to smear it with lard. Grease is the common lubricant, but for machinery, or the bearing of axles generally, other substances may be added which will materially reduce the friction. Mineral oils, particularly the thicker portions of petroleum, have valuable lubricating properties, and may be used either alone or added to lard, tallow, or animal oils, according to the size, weight, and velocity of the revolving shaft. Oils are used for high speed; pasty lubricants for large and heavy bearings. There are a great variety of lubricants used for the axles of common road carriages, many of them patented. Perhaps the most favorite lubricant for light, fine road carriages, which are furnished with tight boxes, is castor oil. When the box is not very tight, a mixture of lard and rye flour may be used with advantage. It has the property of lasting, when mixed in the proportion of about 4 parts of grease to one of flour. Black-lead may be used in combination with lard and flour, or it may alone be mixed with lard or oil. Some vehicles are made with wooden axles, and for these common pine tar is an economical, lasting, preservative, and efficient lubricant. Its appli-

cation may be alternated with lard, or a mixture of lard and tallow, or lard, tallow, and flour; but it is well to have some tar always present. Wherever great delicacy of motion is required, as in watches and other time-pieces, the lubricant must be very fluid. The lubrication may be performed by manual application, or mechanical devices may be employed. There are many kinds of lubricators. They are in the form of reservoirs, which discharge their contents, the lubricants, as fast as they are consumed by the revolving shaft or piece of moving machinery. A simple and often a very efficient lubricator is an inverted oil-can suspended over the bearing or place which requires lubrication. When a pasty lubricant is used, it may be applied on a sponge or brush, if the situation favor such application. The ingenuity of the operator is often advantageously exercised as well as that of the inventor.

LUCIA GIORDANO. See GIORDANO, *ante*.

LUCAN, GEORGE CHARLES BINGHAM, Earl of, 1800; b. England. After passing through Westminster school, he entered the army, and took part as a volunteer with the Russian forces in the Turkish campaign of 1828. He was a conservative member of parliament for county Mayo, 1826-30, and was elected a representative peer for Ireland in 1840. He served through the Crimean war, and participated in the battles of the Alma, Balaklava, and Inkermann. He was made lieut.gen. in 1858, and gen. 1865.

LUCANIA, a district of s. Italy, or Magna Grecia, extending from the Tyrrhenian sea on the w. to the gulf of Tarentum on the e.; bounded s. by Bruttium, n. by Apulia and Samnium, n.w. by Campania. With the exception of an extensive plain between the Apennines and the gulf of Tarentum, Lucania is mountainous. It was one of the wildest parts of Italy, and sent from its mountain forests wild swine for the amphitheatres of Rome. Its chief rivers were the Silarus (*Sele*), the Aciris (*Agri*), Bradanus (*Bradano*), Siris (*Sinno*), Sybaris (*Cosile*), besides many other streams. The principal cities were Sybaris, Heraclea, Metapontum, and Thurium on the e. coast; Præstum and Elea or Velia on the coast of the Tyrrhene sea; Pandosia and Potentia in the interior. The original inhabitants of Lucania were the Chones and Ænotrians; who were gradually subdued by the Samnites from the n., B.C. 300. A league was formed against Lucania by the cities of Magna Grecia about 393 B.C., and a great battle fought in 390, when the Lucanians were victorious. In 272 they were subdued by the Romans. The territory of Lucania forms chiefly the modern provinces of Basilicata and Principato.

LUCAS, a s. central co. of Iowa, traversed by the Chariton river and Whitebreast creek, and crossed by the Burlington and Missouri railroad; 432 sq.m.; pop. '80, 14,530. The surface is varied and the soil fertile, producing Indian corn, wheat, oats, and hay. This county contains a portion of the coal-measures of Iowa. Co. seat, Chariton.

LUCAS, a co. in n.w. Ohio, on lake Erie and the border of Michigan; drained by the Ottawa river, and having the Maumee river on the s.e.; traversed by the Lake Shore and other railroads, centering at Toledo; 300 sq.m.; pop. '80, 67,388. With a level country, there are extensive forests of sugar-maple, tulip-tree, elm, hickory, white-oak, beech, ash, etc. The soil is productive. There are important manufactures, and the leading productions are cotton, grain, and wool. Co. seat, Toledo.

LUCAS, FREDERICK, 1812-55; b. England. After graduating at the London university he was called to the bar. In 1839 he left the society of Friends, in whose tenets he had been brought up, joined the Roman Catholic church, and published his *Reasons for Becoming a Roman Catholic*. He established the *Tablet* newspaper, as an organ of Roman Catholic opinion; conducting it in London at first, but afterwards in Dublin. He was elected to parliament for the county Meath in 1852, and was regarded as the parliamentary leader of the Roman Catholic party. He had constantly urged, in his newspaper, in the *Dublin Review*, and in his political addresses, that it was the duty of the priests to participate in politics. Considerable opposition being manifested to such a course of action, he went to Rome to secure, if possible, the sanction of the pope for his opinions; but he was obliged to leave from ill-health, before a decision was reached.

LUCAS, PAUL, 1664-1737; b. at Rouen, France; son of a goldsmith; as a dealer in precious stones traveled in Greece, Asia Minor, Syria, and Egypt; entered the naval service of the Venetians, participated in the siege of Negropont in 1688, and became capt. of an armed vessel sent to cruise against the Turks. He returned to France in 1696, and sold a fine collection of curiosities to the royal cabinet. Again he visited Egypt and ascended the Nile; went to Tripoli by sea, and joined a caravan in its journey through Armenia and Persia. After being robbed at Bagdad, and taken prisoner by a Dutch privateer, he reached Paris in 1693, and in 1704 published his adventures under the title of *Voyage au Levant*. After this he made another journey to the East, where he collected inscriptions and made plans of buildings in Palestine, Syria, Cyprus, Egypt, and the Barbary states. Of this journey he gave an account in a volume published in 1714. The government sent him on new antiquarian expeditions in 1714 and 1723. In 1736 he went to Spain, where he was employed by Philip V. in arranging his cabinet of antiquities. D. at Madrid.

LUCAS, ROBERT, 1781-1853; b. at Shepherdstown, Va.; a descendant of William Penn. In 1800 he went to Ohio, and in the war of 1812-15 entered the service as capt., and was promoted to be first a lieut.col. of the U. S. army, and then a brig.gen. of Ohio.

militia. He presided over the convention which nominated Jackson for president in 1832; was governor of Ohio 1832-36, and governor of the territory of Iowa 1838-41. D. at Iowa City, Iowa.

LUCAS, SAMUEL, 1818-68; b. Bristol, Eng.; graduated at Queen's college, Oxford, in 1842, having won the Newdegate prize for a poem, and the chancellor's prize for an English essay. He was admitted to the bar of the Inner Temple in 1846. In 1853 he entered the profession of journalism as editor of the *Press*, and, a year later, became literary editor of the *Times*. Three volumes of his essays in that journal have been published, viz.: *Eminent Men and Popular Books*, *Biography and Criticism*, and *Mornings of the Recess*. From 1859 to 1865 he edited *Once a Week*, and then founded the *Shilling Magazine*. A volume, *Charters of the Old English Colonies*, edited by him, appeared in 1850; and twelve years later he collected a series of his essays from the quarterly reviews into a volume entitled *Secularia, or Surveys on the Main Stream of History*. In politics he was a conservative. D. at Eastbourne, Sussex.

LUCCA, PAULINE, b. Vienna, 1842; the daughter of Jews in humble life, she entered the chorus of a theater when only 14 years of age, but 3 years later had developed so much musical ability that she was cast for the part of "Elvira" in *Ernani*. She now attracted the attention of Meyerbeer, the composer, and through his influence succeeded in obtaining an engagement in Berlin, where she continued to be a favorite artist until 1872. During this period she sang also in London and St. Petersburg, and achieved a continental reputation. She married the baron von Rhaden, but was divorced from him. She visited the United States in 1872, making her first appearance at the academy of music, New York, Sept. 30, in that year. Here she became a popular favorite; her remarkable dramatic power, rich, full voice, and brilliant execution attracting favorable criticism in every quarter. Returning to Europe, she continued to sing in the principal cities, her professional career being marred only by her eccentricities of temper, which involved her in constant disputes and breaches of contract with her managers, on account of which she was frequently mulcted in heavy damages. As an actress, she has hardly been surpassed on the operatic stage, except perhaps in the single instance of Giulia Grisi. But both in her acting and her vocalization she has been largely subject to the influence of moods inseparable from her volatile temperament.

LUCERNE, ANNE CÉSAR, Chevalier de la. See LUZERNE.

LUCIAN, SAINT, a presbyter of Antioch, said to have been b. at Samosata. Left an orphan at the age of 12, he removed to Edessa, where he was baptized, and became a pupil of the eminent biblical scholar, Macarius. Entering the ministry at Antioch he founded and conducted a theological school. He became greatly celebrated as an ecclesiastic and biblical scholar. In the reign of Diocletian, by order of Maximin, he was arrested in Antioch, transported to Nicomedia, tortured, and put to death in prison. He was buried at Helenopolis, in Bithynia. Ecclesiastical writers mention him as a man of great learning and piety. Eusebius calls him "a person of unblemished character;" and Chrysostom, on the anniversary of his martyrdom, pronounced a panegyric which is still extant. Jerome says that "Lucian was so laborious in the study of the sacred writings that, in his own time, some copies of the Scriptures were known by the name of Lucian;" and that his "revision of the Septuagint version of the Old Testament was generally used by the churches from Constantinople to Antioch." Jerome speaks of him as also the author of several epistles and theological tracts. In the ecclesiastical history of Socrates is an extant confession of faith drawn up by Lucian. There has been dispute respecting his views of the Trinity, some charging him with Arianism, and even maintaining that he was the founder of Arianism, Arius acknowledging himself as his disciple. Certain it is that he was excluded from the church for heresy by three successive bishops of Antioch. But he was afterwards restored, and was greatly honored for his learning and piety. After his death he was enrolled in the calendar of the church as a saint and martyr.

LUCIANISTS, a religious sect, deriving their name either from Lucian, a presbyter of Antioch, whose theological views were Arian, or from Lucian, a follower of Marcion, the author of numerous forgeries and whose theological views were heretical. He is termed by Epiphanius, *Lucian the elder*. It is conjectured that those who first took the name of Lucianists were disciples of Lucian the Marcionite, and that afterwards it was applied to those who adopted the tenets of Lucian the presbyter of Antioch.

LUCIFER, or PHOSPHORUS, the name applied by the classics to the planet Venus when it is a morning star; also employed to designate the king of Babylon in a passage of Isaiah (xiv. 12), which has been misconstrued into a reference to Satan. Following is the passage in question: "How art thou fallen from heaven, O Lucifer, son of the morning! How art thou cut down to the ground, which didst weaken the nations!" Of the mistaken rendering of this passage, Kitto says: "Tertullian and Gregory the great understood this passage of Isaiah in reference to the fall of Satan; in consequence of which the name Lucifer has since been applied to Satan."

How wretched
Is that poor man that hangs on princes' favors.

When he falls, he falls like Lucifer,
Never to rise again.—*Shakespeare, Henry VIII.*

In the Roman mythology Lucifer was the son of Astræus and Aurora, and was charged with the care of the chariot and horses of the sun, fulfilling this duty in company with the Hours. Milton, with Shakespeare and other writers, adopts the error of the fathers in his *Paradise Lost*, giving to the fallen archangel the name Lucifer. The fact that the Latin and Greek roots of the words lucifer and phosphorus translate into the same meaning of "light bringer," has caused the application of the term lucifer matches, these articles being tipped with phosphorus.

LUCIFER, b. Sardinia; d. about 370; bishop of Cagliari, in Sardinia, and known first in history as a zealous opponent of Arianism. In 354 he was sent by Liberius, bishop of Rome, with Eusebius of Vercelli to defend Athanasias at the council of Milan, for which he was for a time imprisoned, and then banished by the Arian emperor Constantius. At Eleutheropolis, in Syria, he composed his chief work, *Ad Constantinum Augustum pro Sancto Athanasio*. In consequence of his bold and vehement invective he was sent to Egypt. Released from exile on the death of Constantius, he was commissioned by the council of Alexandria to heal the divisions in the church of Antioch, which arose from the supposed Arianism of Meletius, its bishop. But he widened the schism by ordaining Paulinus to the see, for which he was rebuked by his friends. Chafing under the rebuke and displeased with the decree of the council of Alexandria readmitting the adherents of Arianism, he retired in 363 to his native island of Sardinia and founded a sect called Luciferians, whose distinguishing tenet was that no Arian should be received into the church. He died about 370. Besides the work mentioned, he published *Epistola ad Eusebium*; *De non Conveniendo cum Hæreticis*; *De Regibus Apostolicis*; *De non Purcendo in Deum Delinquentibus*; *Moriendum pro Filio Dei*; *Epistola ad Florentium Magistrum Officiorum*; *Epistola ad Catholicos*. These works, distinguished by an acrimonious spirit, are valuable chiefly for the scriptural quotations which they contain.

LUCILIUS, CAIUS, B.C. 148-103; b. Suessa Aurunca (Sessa), n.w. part of Campania, Italy. He was of the equestrian order, and the maternal grand-uncle of Pompey the great. In his 16th year he served under Scipio Africanus at the siege of Numantia. He is generally considered the inventor of satirical composition, at least of that form adopted by Horace, Perseus, and Juvenal. His satires were popular in the Augustan age, and to him Horace, Juvenal, and Perseus seem to have been indebted for their best thoughts and expressions. His style was distinguished by great energy of expression, but deficient in elegance and clearness. He attacked vice with great severity. He was on intimate terms with Lælius and Scipio. His works consist of 30 satires, a comedy, epodes, and hymns, none of which are extant except 800 fragments of his satires, the longest of which has only 13 verses. These have been collected and published by R. and H. Stephens in their *Fragmenta Poetarum Veterum Latinorum*. He wrote also the *Life of Scipio the Elder*.

LUCINA, in Roman mythology, the surname of Juno as the goddess of light, and especially as the deity who presided over the birth of children—the bringing them to light: from *lux, lucis*, "light." This is also the name of a goddess in Egyptian mythology, supposed to have exercised special charge over upper Egypt.

LÜCKÉ, GOTTFRIED CHRISTIAN FRIEDRICH, D.D., 1792-1855, b. Egehn, in the duchy of Magdeburg; studied theology two years at Halle under Knapp and Gesenius, and at Göttingen under Planck. Here he became known from his prize essay, *De Ecclesia Apostolica*. This work procured for him an important office in the theological faculty, and brought him into close literary intercourse with Bunsen, Ernest Schulze, Brandis, Lachmann, and other scholars. In 1817 he published his *Grundriss der Neutestamentlichen Hermeneutik*. In 1818 he was made extraordinary professor of theology at Bonn, and devoted himself with enthusiasm to the study of exegesis and church history. He contributed to the *Theologische Zeitschrift* and *Christliche Zeitschrift*, and began his *Commentary on the Writings of John*. He wrote biographical notices of Planck, Schleiermacher, De Wette, and many others, and during the conflict with Strauss he wrote a tract entitled *Strauss und die Züricher Kirche*. In 1827 he became professor of the theology at Göttingen. He excelled greatly as a commentator, and did much to check the influence of rationalistic criticism.

LUCKNER, NICOLAUS, 1722-94, b. Bavaria; entered the Prussian service, and distinguished himself in the seven years' war. He joined the French army, with the rank of lieutenant-gen., in 1763. In 1791 he was made a marshal, and in 1792 took command of the troops in the n. of France, and captured Courtrai which he soon abandoned, and withdrew to Lille. Taking command of another force he defeated the Austrians near Valenciennes; but soon after was replaced by Kellermann, and was reprimanded by the convention. In 1793 his pension was taken away from him, and in January of the next year he was guillotined.

LUÇON, a t. in France, in the department of La Vendée, arrondissement of Fontenai; pop. 6,603. It is a gloomy town, situated on the eastern edge of the Fens, and at the extremity of the Luçon canal, which connects it with the bay of Aiguillon, and is navigable for vessels of 60 tons. It contains a diocesan seminary, and gives title to a bishop. It has manufactories of porcelain.

LUÇON, or LUZON. See PHILIPPINE ISLANDS, *ante*.

LUCRETIA, a Roman matron, daughter of Lucretius and wife of Collatinus, celebrated for her virtue and beauty. Having been outraged by Sextus, son of Tarquinius Superbus, king of Rome, she made her father and husband swear to avenge her wrong, and then stabbed herself, B.C. 509. The bloody poniard and her dead body, being exposed to the senate were the signal of a revolution, which led to the expulsion of the Tarquins from Rome and the establishment of the republic.

LUDEM, HEINRICH, 1780-1847; b. Germany; educated at Göttingen, and from 1806 till his death professor of history at Jena. He wrote a *History of Antiquity*; *History of the Middle Ages*; and *History of the German People*, the latter covering the period down to 1237.

LUDERS, ALEXANDER NIKOLAYEVITCH, Count, 1790-1874; b. Russia; of German descent. Entered the Russian army in 1807, and served through the war with France. He participated in the Polish campaign, was present at the capture of Warsaw, and commanded a force in the Caucasus from 1843 to 1845. He invaded Transylvania in 1849, and in the Crimean war held a command which he was forced to resign on account of ill-health. He assumed command over Poland in 1861, and for his services in restoring order in Warsaw was created count. The same year an unsuccessful attempt was made to assassinate him.

LUDINGTON, a city in w. Michigan, organized 1867; a terminus of the Flint and Père Marquette railway, connected with Milwaukee by two lines of steamers; pop. '74, 2,500. It is situated on lake Michigan at the mouth of the Marquette river, which a few miles above enters a narrow gulf, of its own name, flowing through it to the lake. It has several manufactories of lumber and shingles, carriage factories, and machine shops; tan-bark is one of its commodities. Its inhabitants depend largely on the fisheries and an inland farming district. It is 137 m. w. of East Saginaw, 54 m. n.w. of Muskegon, 84 m. from Milwaukee, and 125 m. w. of Lansing. It has 2 banks, 4 churches, a convenient harbor, 2 newspapers, 8 hotels, and a fine public school-house.

LUDLOW, EDMUND, 1620-93; b. Maiden-Bradley, Wiltshire, Eng.; was educated at Oxford; joined the parliamentary army under Essex as a volunteer, and was at the battle of Edgehill in 1642. After the death of his father he entered parliament for Wiltshire, and obtained command of a regiment of cavalry. He was an ardent republican, denounced the misgovernment of the king, advocated the establishment of a commonwealth, and supported the bill for the abolition of the house of peers. He was one of the judges of Charles I. His independence rendered him obnoxious to Cromwell, who sent him after the death of Charles to Ireland in 1650 with a military command. When Cromwell assumed the authority of protector, Ludlow vigorously protested against it, being in favor of a republic. Returning to England he refused unqualified submission to Cromwell. Distrusted on account of this refusal, security was required that he would not oppose the government, which being privately furnished by his brother Thomas, Ludlow retired into Essex, where he resided till Cromwell died. He then returned, was active in parliament, and endeavored to restore the commonwealth. On the restoration of Charles II., feeling himself insecure, he fled the country in 1660, landed at Dieppe, and then went to Switzerland, taking up his residence at Vevey. Wearied with exile, he returned in 1689, when, being threatened with arrest for participating in the murder of Charles I., he again fled to Vevey, where he died. Over the doorway of his house he had placed the inscription, *Omne solum forti patria*. Here he wrote his *Memoirs* in 3 volumes.

LUDLOW, FITZHUGH, 1837-70; b. Poughkeepsie, N. Y.; entered upon the life of an author when only 18 years old, and two years later published *The Hashcheesh Eater*, which achieved immediate popularity. He next became known as a sketch and story writer, contributing freely to *Harper's Monthly* and other leading magazines; and, having made a western tour, gave an account of his experiences and of the states and territories visited in a work entitled *The Heart of the Continent*. He also wrote *The Opium Habit*, a book describing the insidious inroads of the drug on the constitution and morale of those habituated to its use, and designed to be a warning against acquiring the habit. Ludlow was unfortunately himself a victim to the "opium habit," a fact which seriously invaded his literary capacity, naturally of excellent quality. He had an exuberant fancy, a brilliant flow of language, and graphic descriptive powers. The last few months of his life were spent in Switzerland, where he died, every effort being made by loving attention to redeem his shattered constitution.

LUDLOW, ROGER, b. England, and settled at Dorchester, Mass., in 1630. After serving for 4 years as one of the assistants, being disappointed in his ambition to be governor, he settled with other Massachusetts emigrants at Windsor, Conn., in 1635, and for the next 19 years was chosen either deputy-governor or a magistrate. In the mean-

time he had taken up his residence at Fairfield, by whose inhabitants he was appointed, in 1654, to conduct a proposed Indian campaign; but this failing to receive the sanction of the general court, Ludlow left Connecticut for Virginia. The time of his birth and death are unknown. During his residence in Connecticut he compiled for the colony its first law code, which was published in 1672.

LUDOLPHUS, or LUDOLF, Job, 1624-1704; b. Erfurt, Thuringia; educated at Leyden, studying specially law and the oriental languages. After leaving Leyden he was successively tutor to the sons of the Swedish ambassador at Paris, and to the children of the duke of Saxe-Gotha at the court of the duke. He spent the latter part of his life at Frankfort-on-the-Main, where he was made president of the academy of history. He was one of the most eminent oriental scholars of his age. In 1649 he visited Rome and mastered the Ethiopic language by the aid of an Abyssinian whom he met. In 1661 he published a dictionary and grammar of this language. He learned also the Amharic language, of which he published a dictionary and grammar. His other most important works are: *Historia Æthiopien*; *Ad suam Historiam Æthiopicam Commentarius*; *Relatio Nova de hodierno Habessinice statu ex India nuper allata*; *Appendix continens Dissertationem de Locustis*.

LUDWIG II., King of Bavaria, b. Aug. 25, 1845; succeeded his father, Maximilian II., Mar. 10, 1864. He is a bachelor and quite eccentric in his habits as a monarch, showing himself infrequently to his subjects, and being devoted as much to art, especially music, as to the cares of government. He took the side of Prussia in the late war with France, and favored the unity of Germany under the imperial rule of William I. His intimacy with Richard Wagner, the musical composer, in the first years of his reign, excited the opposition of the people to such an extent that the king was obliged to send him away from the court. He follows his own caprices rather than the guidance of any political party. He loves the solitude of his magnificent palaces, where he devotes much time to music and theatricals.

LUDWIG, KARL FRIEDRICH WILHELM, b. Germany, 1816; educated at Erlangen and Marburg, and made professor of comparative anatomy at the latter in 1849. He held the chair of physiology at Zürich, 1849-55; at Vienna, 1855-65; and in the latter year was called to the same position in Leipsic. He had made a specialty of anatomical physiology, and has published, besides his contributions to scientific journals, *Lehrbuch der Physiologie des Menschen*, and *Arbeiten aus der Physiologischen Anstalt zu Leipzig*.

LUDWIG, OTTO, 1813-65; b. Germany. Obligated by ill-health to give up music, which he had studied under Mendelssohn, he turned his attention to literature, and produced a number of tragedies and stories: *Der Erbförster* (1853), *Die Makkabaer* (1855), *Zwischen Himmel und Erde* (1856). *Reden oder Schweigen* and *Shakespeare Studien* were published after his death.

LUDWIGSHAFEN, a t. in Rhenish Bavaria, opposite Mannheim, on the Rhine; pop. 12,093. It is a fortified town, and was founded by Louis I. of Bavaria in 1843. The river is crossed at this point by an iron bridge, and there is considerable commerce.

LUGARD, Sir EDWARD, b. 1810; educated at the military college in Sandhurst (England); entered the British army as an ensign in 1828, and served many years with distinction in India. He was in the Afghan war of 1842, in the campaign on the Sutlej, in that of the Punjab, and in the Persian expedition of 1857, being promoted successively to be assistant adjt.gen., adjt.gen., chief of staff, maj.gen., lieut.gen., and gen. He was made permanent under-secretary of war in 1861, and president of the army purchase commission and member of the privy council in 1871; K.C.B. in 1857, and G.C.B. in 1867.

LUGDUNUM. See LYONS, *ante*.

LUGO, a province of Spain, in Galicia, on the Atlantic coast, between long. 6° 52' and 8° 4' w.; 3,484 sq.m.; pop. 474,286. In the n. part it has a mountainous surface, with mines of lead and iron; the southern part is level and fertile, and produces fruits, wine, and wheat.

LUIGI, ANDREA DI, 1470-1512; b. Italy; known also as L'Ingegno, and Andrea d'Assisi. He was a pupil of Perugino, with whom he worked on the Cambio at Perugia. Little is known of his work, but a coat-of-arms in the Assisi town-hall is ascribed to him.

LUITPRAND, or LIUTPRAND, King of Lombardy. See LOMBARDY, *ante*.

LUITPRAND, or LIUTPRAND, 920-72; b. Italy; chancellor of Berenger II., in whose service he went to Constantinople on a diplomatic mission. Having fallen into disfavor with Berenger, he took refuge with the emperor Otho I., who made him bishop of Cremona. He was for a second time ambassador to Constantinople (968-71), and gives an account of his embassy in his *Relatio de Legatione Constantinopolitana*. He also wrote the history of Otho's reign for the years 960-64, the *Historia Othonis*; and the *Antapodosis*, containing the history of Europe from the death of Charles the fat to about 950.

LUKE, THE EVANGELIST (*ante*), concerning whom all that is certainly known is drawn from his own writings and those of the apostle Paul. That he was not a Jew by birth is indicated by the fact that the apostle, in the epistle to the Colossians, speaks of him separately from those who were of the circumcision. According to his own state-

ment, he had not been numbered among the first eye-witnesses and ministers of the word. Paul calls him the beloved physician. His name does not occur in the Acts, and his presence with Paul is shown by the change in his narrative to the first person plural. By following the clue thus given we learn that he joined Paul at Troas, went with him, on his first entrance into Europe, to Philippi, and was separated from him when Paul and Silas were imprisoned; did not depart with him from the city, and was not with him afterwards until his third departure from Philippi, when he rejoined him, continued with him till he reached Jerusalem, and went with him into the church there; was apparently separated from him during the apostle's imprisonment at Cæsarea; sailed with him on the voyage to Italy, and, after their shipwreck at Malta, went with him to Rome, where, during the apostle's first imprisonment, he continued his fellow-laborer, as appears from the epistles to Philemon and the Colossians; and remained to the last faithful to him, when others had forsaken him, as Paul declares in his closing words to Timothy, "only Luke is with me." Tradition tells some other things concerning him which may possibly be true, besides many which certainly are false.

LUKE, GOSPEL OF (*ante*), has occupied the third place in the arrangement of the gospels during all the Christian centuries back to the close of the first. The council of Laodicea, and the historian Eusebius in the 4th c., recognized it as one of the canonical books of Scripture; Origen and Tertullian, in the third, frequently quoted it; Irenæus, 180, acknowledged it as Luke's work; the Muratorian fragment, about 170, assigns it the third place; Tatian, also in the 2d c., constructed his *Diatessaron*, a harmony of the four gospels, the third of which was Luke's. Justin Martyr, in his defense of Christianity, presented to the emperor in 139, quotes as in general use among the churches memoirs of Christ which, it is morally certain, were the four gospels. See JOHN, GOSPEL OF. Clement of Rome, about 100, mentions Luke's gospel as one of the Christian books. These writers say that Luke wrote under the general superintendence of Paul. While this opinion is sustained by the long-continued intimacy and confidence existing between the evangelist and the apostle, Luke says in his preface that, having diligently investigated all things from the very beginning, he wrote out an account of the facts which were already fully believed in the Christian church, and in which Theophilus, for whom he wrote, had been orally instructed. The facts had been spread abroad, first, by the preaching and conversation of those who, from the beginning, were eye-witnesses and ministers of the word; and, secondly, by many written accounts rendered necessary by the increasing number of converts to the Christian faith. Luke's work fully justifies his declaration that he had searched out all things from the beginning, as it gives the genealogy of Jesus back to Adam, narrates the annunciation by the angel to Zacharias and to Mary, and records various facts connected with the birth, infancy, and childhood of Jesus which had probably been furnished by Mary herself.

The contents of the gospel are: the preface addressed to Theophilus; the pre-announcement by the angel Gabriel of the birth of John to Zacharias, and of Jesus to Mary; date of the birth of Jesus connected historically with the reign of Augustus; information concerning his birth given by the angel to the shepherds of Bethlehem; account concerning his childhood and youth; date of John's ministry connected historically with the reign of Tiberius and the Roman governors of Palestine; baptism of Jesus, and genealogical table ascending to Adam; the temptations; return to Galilee and ministry there; address at Nazareth; teaching and mighty works in Capernaum; the calling of Peter, James, and John; the leper cleansed; great multitudes of the sick restored, the paralytic forgiven and cured; call of Levi (Matthew) the publican, followed by the feast at which a great number of publicans and sinners were guests; claim of Jesus to be lord of the Sabbath, sustained by restoring the withered hand; the choice of the 12 apostles; multitudes from all parts of the land healed; discourse corresponding with the "sermon on the mount;" the centurion's servant healed; the widow's son raised; the message from John the baptist in prison, the answer returned, and the testimony concerning him; the woman in the Pharisee's house; parable of the sower, and of the lighted candle; the storm on the lake; the man among the tombs, and the demons among the swine; the woman healed by touching the hem of Jesus's garment; the daughter of Jairus raised; the 12 apostles sent forth; Herod perplexed; the 5,000 fed; Peter's avowal of faith; the transfiguration; the evil spirit cast out; the ambition of the disciples condemned, their narrow views corrected, their intolerance reproved; the 70 sent forth and their joyful return; the lawyer's question answered; the good Samaritan; Martha's care and Mary's choice; instructions concerning prayer; demons cast out; the sign of Jonah given to the Jews; the lighted candle used in parable a second time; denunciations against the Pharisees, lawyers, and scribes; warnings against their hypocrisy, and against covetousness, illustrated by the parable of the rich man; counsel to dismiss anxious thought, to trust God's providential care, and give supreme attention to his service; warning against measuring guilt by suffering; the barren fig-tree; the woman healed on the Sabbath; parable of the mustard seed, and the leaven; the strait gate; lamentation over Jerusalem; the man healed on the Sabbath; seeking the chief places at feasts; the great supper and the excuses made; counting the cost, salt losing its savor, parables of the lost sheep, of the lost money, of the prodigal son, of the unjust steward, of the rich man and Lazarus; against offenses; forgiveness to be proportioned

to repentance; the power of genuine faith; the ten lepers cleansed; the sudden coming of the Son of man; the unjust judge, the Pharisee and publican; infants brought to Jesus; the young ruler; the death of the Son of man foretold; the blind man at Jericho; Zacchæus the publican; the parable of the pounds; entrance into Jerusalem and lamentation over its doom; cleansing of the temple; question to the chief priests and others concerning John's baptism; the husbandmen and the vineyard; hypocritical question of the Pharisees concerning tribute, scoffing question of the Sadducees concerning the resurrection, and silencing question of Jesus concerning the Messiah; the gifts of the rich men and of the poor widow; the destruction of the temple foretold, with the captivity of the Jews, the treading down of Jerusalem, and the coming of the Son of man; conspiracy of the chief priests and scribes against Jesus and their covenant with Judas; the pass-over kept by Jesus and the twelve, with the pre-announcement of the betrayal, of Peter's denial, and the institution of the Lord's-supper; prayer and conflict at the mount of Olives; betrayal, arrest, denial by Peter, condemnation by the council, examination by Herod and Pilate, the latter proclaiming the innocence of Jesus, yet ordering his death; the crucifixion and scenes connected with it; the body given to Joseph and buried by him in a new rock-hewn sepulcher; appearance of angels to the women at the tomb, announcing the resurrection of Jesus; visit of Peter to the spot; appearance of Jesus to two disciples and afterwards to the company of them; expounding of the Scriptures to them, with the direction that the gospel should be preached among all nations, beginning at Jerusalem; ascension of Jesus to heaven from Bethany in the midst of the disciples, and their subsequent thanksgiving and praise.

LULL, RAMON. See LULLY, RAYMOND, *ante*.

LULLY', or LULLI, JEAN BAPTISTE, 1633-87; b. Florence. He was the son of a miller, but having displayed, while still a child, a remarkable natural gift for music, he was spared from following his father's vocation, and educated by a monk in the use of the guitar. Chancing to fall under the notice of the chevalier Guise, he was recommended by that nobleman to Mlle. de Montpensier, the niece of Louis XIV., who engaged him as a page and sent for him to be brought to Paris. He was at this time 14 years of age, and was witty and otherwise gifted; but it appears that he could boast of no personal beauty, and he was accordingly degraded to the kitchen, and began his official life as a *marmiteau*, or scullion. He had by this time gained some acquaintance with the use of the violin, and, by devoting all his leisure to practice on that instrument, he succeeded in acquiring considerable mastery over it, and was presently released from his bondage and placed among the 24 violinists attached to the service of the king. He soon undertook composition, and so successfully that the king, having heard him perform his own pieces, made him the leader of a new band, called "les petits violons." Lully now rose rapidly; and being at first employed in composing music for the ballets which formed a principal entertainment at the court of Louis XIV., he was appointed superintendent of court music, and finally placed at the head of the *académie royale de musique*, which the king founded in 1669. His fortune was now assured; and being the king's favorite, he speedily amassed great wealth, and was honored by being made one of the king's secretaries. His death resulted from improper treatment by an unskillful practitioner, after a slight accident which occurred to him while directing a rehearsal. Lully composed 19 operas, besides ballet music and miscellaneous pieces. He has been generally accorded the reputation of being the father of French dramatic music; and even such composers as Handel and Purcell have not hesitated to acknowledge their obligations to him. He was on terms of intimacy with Molière, composed music for some of his pieces, and even acted with success in his comedies. He married, in 1662, Mlle. Lambert, and had 3 sons and 3 daughters. After his death, an inventory of his possessions valued his silver-plate at 16,707 livres; his jewels, etc., 13,000 livres; his ready money, 250,000 livres; his movables at the opera, 11,000 livres; and the house itself, 80,000 livres. Besides these, the rents of several houses, 4,600 livres a year. And, finally, his widow sold his place of royal secretary for 71,000 livres. Up to 1778, Lully's operas continued to hold the public favor; but after that period, Gluck, Piccini, and Paesiello came into fashion, and he was heard no more. One of his operas was *Acis et Galatée*, and was published with a portrait of the composer. The entire 19 of his operas were published in score.

LUMBER TRADE, including, in its widest sense (in American usage), the commerce in timber for building houses, ships, etc., boards, planks, laths, scantling, shingles, clapboards, railroad ties, telegraph poles, etc., is one of the most extensive and important industries of the United States, and, indeed, of the world. Norway, Russia, and Germany are largely engaged in this traffic, and France cuts a considerable amount of fine timber. Tropical countries furnish dye-woods, veneering, etc. From the West Indies come mahogany, lance-wood, snake-wood, green-heart, etc.; and India, Australia, and New Zealand furnish large supplies of ship-timber. British North America, including Canada, New Brunswick, and Columbia, furnishes lumber to an immense extent. In the United States the most important lumber districts are in Maine, New York, Pennsylvania, Michigan, Illinois, Wisconsin, Minnesota, Indiana, North and South Carolina, Georgia, Florida, the southern portions of Alabama and Mississippi, Texas, northern California, western Oregon, and the region around Puget sound.

Indeed, nearly all the states in the union produce lumber in considerable quantities. The most important centers of the trade are Bangor, Me., Boston, Chicago and the lake ports generally, Albany, N. Y., Savannah, Brunswick, Ga., and Pensacola. According to the census of 1870, the number of establishments producing lumber in some form was 26,945; number of men employed, 163,637; capital invested, \$161,500,273; wages paid, \$46,231,328; total value of products, \$252,339,029. Indeed, so extensive is this traffic that many portions of the country are being denuded of trees with a rapidity which excites alarm for the meteorological effects likely to ensue.

LUMPKIN, a co. in n. Georgia, drained by the head-waters of the Chattahoochee river, called the Chestatee river, and the river Etowah; 400 sq.m.; pop. '80, 6,519—6,513 of American birth, 452 colored. Its surface, presenting features of great natural beauty, is varied by hills covered with forests of ash, hickory, oak, and maple, which hills, rising in the n.w. section, form a part of the Blue Ridge. Gold, granite, iron, lead, silver, and copper represent its mineral wealth; silurian limestone and sandstone are abundant. Its soil is favorable to stock-raising and the production of buckwheat, barley, oats, and grain in general, wool, sweet potatoes, dairy products, and sorghum. It produced in '70, 9,215 lbs. of honey. It had in '70, 3 gold quartz mills, employing 45 hands, with a capital of \$21,500, and an annual product of \$10,780. Seat of justice, Dahlonega.

LUMPKIN, JOSEPH HENRY, LL.D., 1799—1867; b. Ga.; brother of Wilson. After graduating at the college of New Jersey, he was admitted to the bar, in which he soon attained high rank, but from which he was compelled by ill-health to retire in 1844. In 1845 he became associate justice of the supreme court of Georgia, and soon after was elected chief-justice, a position which he held by successive re-elections till his death. He was the founder of, and a professor in, the Lumpkin law school attached to the state university at Athens.

LUMPKIN, WILSON, 1783—1879; b. Va.; removed to Georgia, entered the bar, and served for several terms in the state legislature. He was a member of congress, 1815—17 and 1827—31; governor of Georgia, 1831—35; and U. S. senator, 1837—41.

LUMSDEN, MATTHEW, 1777—1835; b. Scotland; went to India in 1794, and became a magistrate in Calcutta. He was employed as a Persian translator by the East India company, and in 1805 became professor of Persian and Arabic in the college of Fort William, in Bengal. He was afterwards appointed to the superintendency of the Mohammedan college at Calcutta. Besides a number of translations, he published a *Grammar of the Persian Language*, 1810; *Grammar of the Arabic Language*, 1813; and *Selections for the Persian Class*.

LUNA, or SELE'NE, in mythology, the sister of Helios and goddess of the moon. Some writers term her the daughter and others the wife of Helios, and mother of the four seasons. By Jupiter she had a daughter, Pandia; and Hersa (dew) was the offspring of the king of heaven and the goddess of the moon. She was worshiped by the Romans, though not esteemed as one of the important deities. She had, however, a temple on the Palatine, which was illuminated nightly.

LUNA, ALVARO DE, 1390—1453; b. Spain; was educated with the infant king, John II., with whom he made his escape from the custody of the infante of Aragon in 1418. He led a successful revolution in behalf of the rights of the crown, and in 1423 was made constable of Castile. He became the favorite minister of the king, but his enemies succeeded in twice driving him from the court, first in 1426, and next in 1439. In 1445 he was victorious in a war against the infantes of Aragon, for which he was rewarded with the grand-mastership of Santiago, which he held together with the dukedom of Truxillo and the lordship of 60 towns and fortresses. He was at last overcome by an intrigue, condemned to death, and executed at Valladolid.

LUNA, PEDRO DE, 1334—1424; b. Spain; received a cardinal's hat from Gregory XI.; and on the death of the Avignon pope, Clement VII., in 1394, was elected pope by the Avignon cardinals, on condition that he should resign at the request of the college of cardinals, or whenever the pope at Rome should resign, so that a new pope might be chosen, and the great schism ended. Luna took the name of Benedict XIII., and refused to resign when requested; and the Roman pope, Boniface VIII., likewise refused to resign. At a council in Paris, 1398, it was decided to refuse obedience to Benedict; he was besieged in Avignon, but succeeded in making his escape. In 1403 France, the greater part of Spain, Portugal, Scotland, and Sicily had acknowledged him as the lawful pope; but in 1409 the council of Pisa deposed both Benedict and Gregory XII., who had been in the meantime elected pope at Rome, and conferred the tiara upon Pietro Filargo as Alexander V., who died in 1410, and was succeeded by Baltassare Cossa as John XXIII. Spain and Scotland continued to acknowledge Benedict; John XXIII. and Gregory XII. abdicated, but Benedict refused to do so even after the council of Constance (which had been sitting since 1414) had elected, in 1417, Ottone Colonna as pope Martin V. Benedict withdrew to the fortress of Peniscola in Valencia, and continued in schism till his death.

LUNACY (*ante*). Courts of justice concern themselves with the subject of insanity only so far as they find it necessary in determining the competency or the responsibility

of persons upon whose acts they are required to pass judgment. To the speculations of the psychologist or his labored attempts to find a scientific solution of all the difficulties in which the subject is involved they pay little heed, but carefully limit themselves to the one practical issue with which they have to deal. If an attempt be made to invalidate a contract or a will on the ground of insanity, the question to be decided is whether the maker was in the possession of his faculties to such a degree as to enable him clearly to understand his obligations and duties, and to protect his own interests; and, even if it be proved that he was in some respects insane, his acts will not, therefore, be regarded as void *ab initio*, but only as voidable if they are shown to be irrational and wrong. If a lunatic buy for himself or his family the necessities of life, the act being proper and rational in itself and injurious to no one, his estate will be liable for the debt thus incurred; and if he make a will just in itself and injurious to none, it will be respected and enforced. In the case of a criminal in whose behalf the plea of insanity is set up, the question is whether he was in a condition to understand the nature of his act, and had the power of doing or abstaining from doing it. Neither drunkenness nor heat of blood will be accepted as an excuse, for the law assumes that a man is bound to keep his appetites and passions under control. Nor can mental weakness exempt from responsibility for crime, unless it be proved that it was the offspring of disease, and that the disease overpowered the reason and the will. Congenital imbecility, though similar in some of its effects to insanity, is yet not to be confounded therewith, but to be treated upon its own ground. The law knows nothing of any form of insanity that does not spring from bodily disease. No crime, however atrocious, is regarded in law as evidence in itself of insanity, responsibility being assumed until mental unsoundness, the fruit of disease, is proved. No other department of human evidence has led to such interminable debate in courts of law as this. However the common mind may judge as to the application of these principles, and though in their application courts may sometimes have been confused, for the most part our jurisprudence has in this respect proceeded upon the safe ground of common sense. Scientific experts have been allowed great latitude in expounding their theories, but judges have generally been careful, in considering the subject, to keep their feet upon the solid earth, not wandering readily or far from established precedents. The subject is regarded in law under three aspects—insanity, partial insanity, and mental unsoundness. When the reasoning faculties are under constant duress and mental incompetency seems to be a permanent condition of the mind, the law deals with the person as insane, and holds his acts to be voidable, though not necessarily void, as they may sometimes be rational and right. Partial insanity is said to exist when a man is insane in some particulars while perfectly rational in others. In such cases the law has simply to decide how far his acts are rational; and in whatever degree they are so, it will treat them as it would those of a sane person. If a partially insane person make a will or enter into a contract, it will be sustained if no evidence of mental disorder appears upon the face or in the substance of the instrument. Those who deal with a person known to be partially insane do it, however, at their peril. Mental unsoundness is not necessarily the result of any appreciable disease, but may arise from the natural decay of the mental powers in consequence of inherited weakness, or from drunkenness or some other vice. Persons in this condition are not necessarily dangerous to themselves or others, but in some spheres of labor may even be useful. What degree of mental unsoundness in any particular case will justify and require guardianship is a question for the courts to decide. See IMBECILITY, LUNACY.

LUNALILO', WILLIAM CHARLES, sixth king of the Hawaiian islands, 1835-74; b. Honolulu. He was a descendant of Kamehameha I. Kamehameha V., called Lot, being unmarried and dying without naming a successor, prince Lunalilo, a chief of a high family, was chosen king Jan. 1, 1873, and crowned on the 9th. He was educated at the royal school established by the missionaries at Honolulu in 1839. He, with his cousins, Kamehameha IV. and V., received there a good education, showing special taste for literature and poetry. In 1860 he visited California with Lot and David, the first preceding, the last succeeding him as king. Lunalilo, before his accession, was dissipated, but reformed and made a good and popular ruler. After reigning one year and twenty-five days he died without naming a successor, and David Kalakaua was appointed king by the legislature.

LUNAR CYCLE. See METONIC CYCLE.

LUNDY, BENJAMIN, 1789-1839; b. Hardwich, Suffolk co., N. J., of Quaker parentage; had no advantages of education, save those afforded by the common-schools; was imbued with a keen thirst for knowledge, and read eagerly such books as were within his reach. While serving an apprenticeship to the saddler's trade in Wheeling, Va., his heart was touched with sympathy and indignation at the sight of coffles of slaves passing through that place on their way to a southern market, and he resolved to give his life to the work of abolishing slavery. Having completed his apprenticeship, he married, and settled in St. Clairsville, Ohio, where he carried on the business of a saddler for four years, accumulating a considerable sum of money. His pecuniary prospects were highly flattering, but the remembrance of the slave was ever with him. Accordingly, he persuaded five others to join him in organizing a "union humane society," which, in a few months, enrolled nearly 500 members. A short time after this he began to

discuss the subject of slavery in the *Philanthropist*, a weekly paper published in Mt. Pleasant, Ohio. In the autumn of 1819, the agitation of the "Missouri question" being then rife in the country, he took his whole stock in trade to St. Louis, resolved to sell it and devote the proceeds to the promotion of the antislavery cause. He lost by this venture nearly all that he had accumulated; but this did not discourage him in his chosen course. He devoted himself for a time to the work of exposing the evils of slavery in the newspapers of Missouri and Illinois, hoping in this way to create a public sentiment adverse to the admission of Missouri to the union as a slave state; but he soon returned to Ohio, settling at Mt. Pleasant, where, in Jan., 1821, he began the publication of a monthly journal entitled the *Genius of Universal Emancipation*. This paper was shortly afterwards removed to Jonesborough, Tenn., where there was a considerable body of people who shared his hostility to slavery and gave him a warm welcome. In 1824 it was removed to Baltimore, Md., where it was published weekly. Mr. Lundy, while adverse to the scheme for colonizing the negroes in Africa, was yet imbued with the idea that some place of refuge outside of the United States was necessary as a means of promoting emancipation; and, in 1825, he visited Hayti, where he sought to make arrangements with the government for the settlement of such emancipated slaves as might be sent thither. In 1828 he journeyed on foot through parts of the middle and eastern states to lecture on slavery and procure subscribers to his paper. He found a few friends ready to aid him, but the people in general had grown apathetic on the subject since the admission of Missouri to the union as a slave state. In the winter of 1828-29 Mr. Lundy was brutally assaulted and nearly killed by Baltimore's great slave-dealer, Austin Woolfolk, who had taken offense at something which had been said of him and his nefarious business in the *Genius of Universal Emancipation*. In the spring of 1829 he made a second visit to Hayti, taking with him a small number of emancipated slaves, for whom he sought an asylum. In the fall of the same year William Lloyd Garrison, by invitation, joined him in Baltimore as co-editor of the *Genius*. The two men were alike in their hostility to slavery, but Mr. Garrison was a pronounced advocate of immediate emancipation, while Mr. Lundy, like most of the antislavery men of that day, was a gradualist, fearing, if not believing, that a sudden emancipation would be dangerous to the public welfare. Mr. Garrison, too, was for emancipation on the soil, while Mr. Lundy was committed to schemes of colonization abroad. When about half the first year of their partnership had expired, Mr. Garrison was convicted of a criminal libel, fined, and thrust into prison for declaring that the domestic traffic in slaves was, in its nature, as piratical as the foreign, and that a New England sea-captain, who had taken a cargo of human flesh from Baltimore to New Orleans, was guilty of conduct which should cover him with "thick infamy." This occurrence led to a dissolution of the partnership between Mr. Lundy and Mr. Garrison, the former continuing the publication of the *Genius*, but making Washington the place of its nominal issue, while it was printed once a month in whatever place he found it convenient to stop for that purpose in the course of his travels. In the winter of 1830-31 he visited the Wilberforce colony of fugitive slaves in Canada, and soon afterwards went to Texas, for the purpose of securing a similar asylum under the Mexican flag. He went to Texas again in 1833, but was baffled in his purpose on account of the scheme for wresting that country from Mexico, and annexing it to the United States. In 1836 he commenced the publication, in Philadelphia, of an antislavery paper, entitled the *National Enquirer*, absorbing therein the *Genius of Universal Emancipation*. A year later he resigned the editorship of the new paper, and in the winter of 1838-39 removed to Lowell, La Salle co., Ill., intending to resume there the publication of the *Genius*, but on the 22d of the ensuing October he died. He was a man of rare courage and self-sacrifice, a pioneer in the movement for the abolition of American slavery. He traveled more than 5,000 miles on foot, and upwards of 20,000 miles in other ways, visiting 19 states of the union, and addressing hundreds of public meetings, to promote the object to which he had devoted his life.

LUNDY'S LANE, BATTLE OF, July 25, 1814. While the American army, 3,000 strong, were in camp at fort Chippewa, on the Niagara river, opposite Buffalo, under command of gen. Brown, intelligence was received at noon that the British gen. Drummond had crossed the Niagara at Queenstown to attack fort Schlosser, the American depot of supplies. Gen. Brown immediately sent col. Winfield Scott (afterward gen.) with 1200 men to make a demonstration on Queenstown. Near sunset, gen. Scott found himself approaching a strong force of the British, posted behind a belt of woods on an eminence, supported by a battery of nine guns, and commanded by gen. Rial. This position was at the head of Lundy's lane, 1½ m. from Niagara Falls. Scott seeing the strength of force opposed, sent back to gen. Brown for support, and at once ordered maj. Jessup with the 25th regiment to attack the English on the left flank, and himself occupied their attention by a vigorous attack in front. Jessup's flank attack was successful, and resulted in the capture of the English gen. Rial. But on the front col. Scott met a galling resistance. Gen. Brown arrived with reinforcements in the evening, and gen. Drummond had arrived and reinforced the enemy. An attack was ordered on the front to capture the English battery. Under cover of the darkness two regiments were pushed forward. The first was repulsed by timely discharges of grapeshot, but col. Scott at the head of the second succeeded in capturing the battery, turned it against

the enemy, and enabled gen. Brown to hold the hill in force against three desperate assaults of the English troops to regain possession. The struggle closed at midnight by the withdrawal of the British troops. Considering the small forces engaged, it was a sanguinary battle. Gen. Drummond, as well as gen. Brown and col. Scott, were wounded, the latter severely. After the battle the command devolved on gen. Ripley, who for lack of force was obliged to leave the trophies of the evening's victory, and to retire to fort Chippewa. The American loss in killed and wounded was 743; the British, 878.

LUNENBURG, a co. in s.e. Virginia, intersected in the extreme s.w. by the Richmond and Danville railroad; bounded on the n.e. by the Nottoway river, and on the s. by the river Meherrin; 410 sq.m.; pop. '80, 11,535—11,434 of American birth, 6,924 colored. Its surface is uneven, and tolerably well wooded. A large proportion of the soil is fertile, and furnishes good grazing facilities. Its leading productions are: tobacco, wool, sweet potatoes, oats, corn, wheat, sorghum, and the products of the dairy. Cattle, sheep, and swine are raised. It produced in '70, 3,900 lbs. of honey. Its water-power is utilized by flour and saw mills. Seat of justice, Lunenburg Court-House.

LUNENBURG, a co. in s.e. Nova Scotia, having the Atlantic ocean for its e. and s.e. boundary, drained by Sherbrooke lake in the n., and other small lakes and rivers, including the La Have, emptying into Mahone bay, and thence into the ocean; 1115 sq.m.; pop. '70, 23,834. Its soil is fertile, and its inhabitants are largely engaged in deep sea fishing and in the West India trade. Foreign vessels, which frequently visit its ports, find good anchorage and safe shelter in its harbors and bay. In the n.e. is Chester basin, a small bay, containing, it is said, 365 beautiful little islands. Its industries are represented by spacious yards for ship-building and repairs, tanneries, and saw mills, and it exports lumber and wood. In the e. section are alkaline springs. Seat of justice, Lunenburg.

LUNENBURG, a thriving seaport of Nova Scotia, the capital of Lunenburg co.; pop. 1500. It was settled by Germans in 1753, and many of the present inhabitants are of German descent. Its principal exports are fish and lumber. It has considerable trade with the West Indies. It has a deep, capacious, and well-sheltered harbor. Gold is found in the neighborhood.

LUNT, GEORGE, 1803: b. Mass.; educated at Harvard university, graduating in the class of 1824, studied law, was admitted to the Essex co. bar, and commenced practice in Newburyport, Mass., in 1831, where he had been at one time principal of the high school. He served several terms in the legislature of his state, being elected to a seat in both branches. In 1839 he published a small volume of poems, which was followed by others in '43, '51, and '54, comprising *The Age of Gold, and other Poems*, and *Lyrics, Poems, Sonnets, and Miscellanies*. In 1845 he read a poem entitled *Culture* before the Boston mercantile library association. In 1848 he removed to Boston, and in the following year was appointed U. S. district attorney by president Taylor, holding the position until 1853, when, under a change of administration, he resumed the private practice of the law. In 1857 he became editor-in-chief of the Boston *Daily Courier*, exerting a marked influence on the democratic politics of the period, and in the same year he wrote *Three Eras of New England*. In 1858 he published *Radicalism in Religion, Philosophy, and Social Life*; in 1860, *The Union*, a poem; and in 1866, *Origin of the Late War*. Other works are: *Eastford; or, Household Sketches by Wesley Brooke*, a novel; and *Julia*, a poem. His writings are distinguished for a finished, brilliant style, the vehicle of vigorous thought.

LURISTAN, a province of Persia, on the border of Khuzistan, between the Kerkhah and the Dizful, an affluent of the Karun; is almost entirely occupied by mountains and narrow valleys; 20,000 sq. miles. Near the outer ridges of the mountain region are some plains of moderate extent, which are under cultivation; the remainder of the region serves as pasture-ground for the different tribes of Lurs who inhabit it. The Bakhtiyari, one of these tribes, are ferocious and warlike. The only town is Khorramabad, situated in a fertile district, 90 m. s. of Hamadan, on a feeder of the Kerkhah; it contains about a thousand huts, built on the s.w. face of a steep rock, on whose summit are a fortress and a palace.

LUSHINGTON, STEPHEN, D.C.L. 1782—1873; b. England; educated at Oxford, and called to the bar in 1806. The next year he was returned to parliament for Great Yarmouth, and represented that and other boroughs till 1841, when he was obliged to retire in consequence of an act of parliament disqualifying the judge of the admiralty from sitting in the commons. He was a follower of Fox and Grenville; and among the parliamentary measures which he supported, were the abolition of the slave-trade, the recognition of the South American republics, and the emancipation of the Jews. In 1820 he was of counsel for queen Caroline, in conjunction with lord Denham and lord Brougham. He was appointed a judge of the consistory court in 1828, and judge of the admiralty in 1838, and, in the latter year, he was sworn in of the privy council. He was the counsel and friend of lady Byron, and an authority on ecclesiastical law.

LUSITANIA, a district of ancient Hispania, which, as the country occupied by the Lusitani was, according to Strabo, bounded s. by the Tagus, n. and w. by the ocean. Its extent afterwards was contracted by the growing importance of the Callaici, and the river Durius (*Douro*) became its n. boundary. Afterwards, many of the Lusitanians being driven southward in their long struggles with the Romans, the name Lusitania was given to the district s. of the Tagus. When Augustus divided the peninsula into the three provinces, Bætica, Tarraconensis, and Lusitania, the last occupied the s.w., between the Anas (*Guadiana*) on the e., the sea on the s. and w., and Durius on the north. It comprised the greater part of the modern kingdom of Portugal, besides a large portion of Leon and the Spanish Estremadura. The chief river in the district is the Tagus, flowing w. into the Atlantic. Some of the principal towns are Metellinum (*Medellin*); Emerita Augusta (*Merida*), the Roman capital, on the Anas; Olisipo (*Lisbon*), the capital before the time of the Romans, on the Tagus; Conimbriga (*Coimbra*), on the Munda; Salmantica (*Salamanca*); Pax Julia (*Beja*); Ebora (*Evora*). The province was formerly rich and fertile, and had valuable mines of gold and silver. The Lusitani were a wild and warlike people, much addicted to plunder, especially those living in the mountains. They were the bravest of all the Iberians, and held out the longest in resistance to the Romans. In 153 B.C. they revolted, and for fourteen years fought against the Romans, who, for a time, acknowledged their independence. Viriathus, their chief, a bold and skillful leader, defeated several Roman generals. At length the consul Cæpio, unable to subdue him in the field, captured him by the treachery of some of his intimate friends, and put him to death, when the Lusitanians were completely subdued, 140 B.C.

LUSTER, a term used in mineralogy to denote degrees and qualities of brightness. There are six kinds usually recognized, viz.: metallic, vitreous, adamantine, resinous, pearly, and silky. There are usually four and sometimes five degrees recognized, viz.: splendid, when a perfect image is reflected; shining, glistening; some use the term glimmering when the reflection seems to be limited to points on the surface. Minerals also are said to have a dull luster.

LUSTRATION, in antiquity, purification by sacrifices and various ceremonies. The Greeks and Romans purified the people, cities, fields, armies, etc., defiled by crime or impurity. This was done in several ways, viz.: by fire, water, sulphur, and air, the last by fanning or agitating the air around the thing purified. When Servius Tullius had numbered the Roman people, he purified them as they were assembled in the Campus Martius; and afterwards a lustration of the whole people was performed every fifth year before the censors went out of office. On that occasion the people assembled in the Campus Martius, when the sacrifices termed *suovetaurilia*, consisting of a sow, sheep, and ox, after being carried thrice around the people, were offered up, and a great quantity of perfumes was burned. This ceremony was called *lustrum*. It was instituted by Servius Tullius, 566 B.C., and performed for the last time in the reign of Vespasian. The term *lustrum* was given also to the period of five years between the lustra. The army was purified before a battle by causing the soldiers to defile before the two quivering halves of a victim, while the priest offered certain prayers. The establishment of a new colony was preceded by a lustration with sacrifices. Rome itself, and all towns within its dominion, always underwent a lustration after being visited by some great calamity. The lustrations of fields were performed after sowing was finished, and before reaping began. The lustration of flocks, designed to keep them from disease, was performed every year at the festival of the Palilia, when the shepherd sprinkled them with pure water, thrice surrounding the fold with savin, laurel, and brimstone set on fire, and afterwards offering incense and sacrifices to Pales, the tutelary goddess of shepherds. Private houses were purified with water, a fumigation of laurel, juniper, olive-tree, and the like, and a pig offered as the victim. Infants were purified, girls on the third, boys on the ninth, day after birth, then named and placed under the protection of the god of the family. The lustration of a funeral pile was by having the spectators march round it before a fire was kindled. Whatever was used at a lustration was cast into a river, or some other inaccessible place, as to tread upon it was considered ominous of some great disaster.

LUTHERAN CHURCH in the United States (LUTHERANS, *ante*). The first Lutherans came to America in 1621 in company with the first Dutch emigrants to what is now New York. They were without ministerial guidance. In 1638 Swedish Lutherans, with a minister, settled at Wilmington, Del. Their second pastor translated Luther's smaller catechism into the language of the native tribes in the vicinity, commencing missionary labor among them soon after 1643, about the same time with John Eliot in Massachusetts. These Swedes afterwards united with the Protestant Episcopal church, under whose care the "old Swedes' church" in Wilmington still stands. There is a similar one in Philadelphia, popularly known by the same name, and in communion with the same denomination. The first German Lutheran settlers in this country also came to New York with the Dutch in 1644, and were at first without a minister. When numerous enough to support a pastor, the Dutch would not allow them to have one. But under the English rule, having obtained religious liberty, they secured their first minister, Jacob Fabricius, in 1664, and a house of worship in 1671. This was rebuilt,

in 1703, at Broadway and Rector street. In 1710, 4,000 Germans, fleeing from civil and religious oppression, settled in New York, Pennsylvania, and South Carolina. Another colony went to Georgia in 1734, and was much increased by a second company the following year. John and Charles Wesley, when they visited Georgia, found these Lutherans flourishing and useful. The German Lutherans of Philadelphia, having sent earnest requests for help to their brethren in England and the fatherland, Franke, the founder of the orphan house at Halle, persuaded Dr. Henry Melchior Muhlenberg to settle in America. His arrival in 1742 opened a new era in the progress of the American Lutheran church, of which, indeed, he was, in a great degree, the founder. When he came, finding no organization, he set himself to effect a union at least of German Lutherans. By exerting his influence in Germany, he induced a number of his friends to come to America, so that in 1748 he was able to form a synod, which afterwards met annually with very beneficial results. In 1749 an orphan asylum was established at Ebenezer, Ga.; in 1765 a private theological seminary was commenced; in 1787 the legislature of Pennsylvania founded Franklin college "for the special benefit of the Germans of the commonwealth, as an acknowledgment of services rendered by them to the state, and in consideration of their industry and public virtues;" and in 1791 the same legislature gave 5,000 acres of land to the free schools of the Lutheran church in Philadelphia. In 1785 the New York synod was formed; in 1803, that of North Carolina; in 1819, that of Ohio; and in 1820, that of Maryland and Virginia. In 1816 a public theological seminary was established at Hartwick, N. Y. During the revolution the Lutherans were zealous patriots, and, in consequence, incurred the dislike of the English. At the close of the war a large number of the German soldiers whom the British government had hired remained in this country and joined the Lutheran congregations. The growing acquaintance of the younger generations with the English language made them anxious to have part, at least, of the religious services conducted in it. The older persons, however, resisted the effort, some of them even believing that the German might become the language of the country. The first Lutheran church in which English was exclusively used was built in 1809, and it remained the only one for many years. In 1820 the general synod was formed, representing 135 ministers and 33,000 church members. The fresh arrival of Lutherans from Europe produced differences of opinion and disputes which resulted in several secessions from the main body. After the war of the rebellion the southern general synod was formed. A division on doctrinal grounds next occurred in the northern synods. While the Augsburg confession was cordially accepted by the general synod as a most important historical document, they did not regard a strict adherence to the letter of its teachings as essential to church membership, the privileges of which they wished to extend to all Lutherans. But the stricter party were dissatisfied with this liberal view, and, in 1864, the admission of the Frankean synod led to the withdrawal of the oldest organization—the synod of Pennsylvania—and, subsequently, to the formation of the general council.

STATISTICS AS GIVEN IN THE CHURCH ALMANAC FOR 1880:

	Ministers.	Congregations.	Members.
I. Synodical conference.....	1,150	1,875	436,000
II. General synod, north.....	840	1,217	125,000
III. General council.....	760	1,467	207,300
IV. General synod, south.....	100	175	13,300
V. Independent synods.....	165	490	43,500
Total, 58 synods.....	3,015	5,224	825,000

LÜTKE, FEODOR PETROVITCH, b.-1797; was educated for the Russian naval service. In 1817-19 an associate in a Russian expedition around the world, which made discoveries on the shores of Nova Zembla. From 1826 to 1828 he was engaged in explorations in Behring's straits, the sea of Kamtchatka, its connections, and its before unknown islands. In 1830 he made a voyage of scientific observation to ascertain the oscillations of the pendulum. He was made admiral in 1835, and was subsequently employed in conspicuous service. In 1855 he procured the establishment of the Russian geographical society, and in 1864 was president of the academy of sciences at St. Petersburg. His principal published work is his *Four Voyages Across the Arctic Seas* (St. Petersburg, 1824).

LUTRA. See OTTER, *ante*.

LUTTI, FRANCESCA, b. Riva di Trento, in the Italian Tyrol; is devoted to literature and philanthropy, and ranked among the first of Italian poets. Her works are *Novelle e Liriche* (2 vols.); *Alberto*; and *Un Proverbio*.

LUTZ, JOHANN VON, 1826; b. Bavaria; Bavarian minister of justice, 1867-69, when he took the office of minister of public education and worship, in which he distinguished himself by his firm resistance to the ultramontanes.

LÜTZOW, LUDWIG ADOLF WILHELM, Baron von, 1782-1834; a German officer of the province of Brandenburg, made famous principally by the songs of Körner, especially *Lutzow's Wilde, Verwegene Jagd*. On the retreat of the French from Moscow he placed himself at the head of the students of the universities, who rose *en masse* under the title of the *Tugendbund*, and, as the black cavalry, first distinguished themselves at the battle of Lützen. It was their vigorous following of the retreating French army that received the name of "Lutzow's wild chase."

LUXEMBOURG PALACE, built at Paris in 1615 by order of Marie de' Médicis. It is in the style of the Pitti palace at Florence, and was sumptuously decorated by Debrosse, but afterwards altered by Chalgrin, the architect of the Arc de l'Étoile. Between 1621 and 1625 Rubens, who was commissioned to embellish the palace with paintings, painted, with the assistance of his pupils, those large pictures representing scenes from the queen's life which are now in the Louvre. The long gallery in which these paintings were originally hung still contains frescos by Jordaens, the pupil of Rubens. The palace continued to be a royal residence down to the revolution, shortly before which it was presented by Louis XVI. to his brother, the count of Provence, afterwards Louis XVIII. The palace derives its name from the duke of Plinney-Luxembourg, whose mansion formerly occupied the site, and, although various other names have been proposed, none of them has ever been permanently adopted. In 1795 the building was named the Palais du Directoire, and afterwards the Palais du Consulat. During the first empire the palace was occupied by the senate, and styled Palais du Sénat-Conservateur. After the restoration and under Louis Philippe, the chamber of peers met here. In March and April, 1848, the *commission des travailleurs*, under Louis Blanc, held its socialist meetings in the palace. From 1852 to 1870 it was named Palais du Sénat, that body having again sat here during the second empire. Since 1871 it has been occupied by the offices of the préfet de la Seine. The Palais du Luxembourg, although its architecture is somewhat heavy, is one of the handsomest and most symmetrical buildings of Paris. The principal façade, which has been restored in conformity with the design of Debrosse, rises opposite the rue de Tournon. It is nearly 300 ft. in width, and consists of a central dome-covered pavilion and two wings, connected by galleries. It is adorned with Tuscan, Doric, and composite columns placed above each other. The *salle du trône* was adorned in 1856 with a series of large pictures representing scenes from the history of the Napoleons. The room adjoining is a gallery of busts of former peers and senators. The apartments of queen Marie de' Médicis were restored in 1817. The chapel was restored and richly decorated in 1842. The dome of the library is adorned with one of the finest works of Eugène Delacroix, representing Elysium as portrayed by Dante. The *musée du Luxembourg* occupies a room on the ground-floor of the palace. It contains a collection of works of living artists, consisting of paintings, sculptures, drawings, engravings, and lithographs. The works of the most distinguished masters are generally transferred to the Louvre about ten years after their death. To the n.e. of the palace, opposite the gate of the garden, rises the *théâtre de l'Odéon*, a heavy and unattractive edifice erected in 1818. The façade on the n. side is adorned with a Doric portico. On the three other sides are galleries occupied by book and newspaper stalls. The interior is well fitted up, and the chandelier is particularly handsome. The *foyer* is embellished with busts and portraits of dramatists and actors connected with the Odéon. The garden of the Luxembourg on the e. and s. sides of the palace contains the "fontaine de Médicis," by Debrosse, in the Doric style, with imitations of stalactites; "Polyphemus surprising Acis and Galatea," by Otton; an "Archidamas about to Throw the Disk," by Lemaire; and copies of the "Borghese Gladiator" and the "Diana" of Versailles. The terraces surrounding the parterre are embellished with 20 modern statues in marble of celebrated French women. A fountain designed by Carpeaux was erected in 1875 at the point where the garden formerly terminated. It is adorned with eight horses rising above the lower basin, and with a group of four figures bearing an armillary sphere. The place is called the *carrefour de l'observatoire*. The statue of Ney, to the left of the *carrefour*, stands on the spot where the marshal was shot in 1815, in execution of the sentence pronounced by the chamber of peers on the previous evening. The statue is in bronze by Rude, and was erected in 1853. On the sides of the pedestal are inscribed the names of the battles at which the marshal was present. The *observatoire* is situated at the end of the avenue of that name. This celebrated institution was founded in 1672. The meridian of Paris runs through the center of the building, and the latitude of the s. façade is held to be that of Paris. The copper dome, which is 42 ft. in diameter, is constructed so as to revolve round its vertical axis for the purpose of adjusting the great equatorial which it contains. The observatory also has a new telescope, which cost 200,000 francs.

LUXOR, in upper Egypt. See THEBES, *ante*.

LUYNES, HONORÉ THIÉODORIC PAUL JOSEPH D'ALBERT, Duc de, 1802-67; son of Mme. de Chevreuse, whose too plainly expressed contempt for some of the faults of the court of Napoleon I. caused her dismissal on two different occasions. Her son first turned to archæological studies by the discovery of the remains of the Greek city of Metapontum on one of his father's estates in Italy. On the accession of Louis Philippe

in 1848 he became a member of the constituent assembly, and in 1849 of the legislative assembly. In 1851 he was one of the parties arrested by Louis Napoleon in the *coup d'état*, though not a republican. In 1864 he pursued archaeological studies in Syria and Palestine, which were the basis for the work of his grandson, entitled *Voyage d'Exploration à la Mer Morte, à Palmyre, à Petra, et sur la rive gauche du Jourdan*.

LUZAC, JEAN, 1746-1807; a Dutch philologist, and one of the editors of the *Leyden Gazette*, a journal of large influence controlled by his family since 1738. He was a friend and correspondent of Washington, John Adams, and Jefferson, and for a time directed the education of John Quincy Adams. He was Greek professor of the university of Leyden at the close of the last century. His lectures on Greek history were considered too republican, and caused him to be suspended from his position for a time. In 1809 his lecture in defense of Socrates—*Lectioes Attica*—was published in Leyden.

LUZENBERG, CHARLES ALOYSIUS, 1805-48; b. Verona, Italy; entered college by special permission when but 10 years of age; emigrated to the United States in 1819; attended lectures in the Jefferson medical college in Philadelphia; in 1829 removed to New Orleans, where he was attached for a time to the charity hospital, and afterwards established one of his own, in which he performed many difficult surgical operations. He was in Europe 1832-34, and was elected a corresponding member of the Paris academy. He returned to Louisiana in 1834; founded the society of natural history in 1839, and the Louisiana medico-chirurgical society in 1843, and was the first president of both. Died in Cincinnati.

LUZERNE. See LUCERNE, *ante*.

LUZERNE, a n.e. co. of Pennsylvania, drained by the Lehigh river and Nescopeck creek, and intersected by a branch of the Susquehanna; traversed by the Lehigh Valley, Central of New Jersey, and Lackawanna and Bloomsburg railroads; 850 sq.m.; pop. '80, 133,066. It is heavily wooded, and the scenery is varied and picturesque, comprising, among other features, the charming Wyoming valley. The soil is fertile, the productions including hay, Indian corn, lumber, oats, wheat, butter, and cattle. This county has a larger coal product than any other in the United States, the larger part of the mineral (anthracite) lying in the Wyoming and Lackawanna valleys. In 1870 the coal exportation of the county was nearly 10,000,000 tons. Co. seat, Wilkesbarre.

LUZERNE, CHEVALIER ANNE-CÉSAR DE LA, LL.D., 1741-91; a French gen., and ambassador to the United States from 1779 to 1783. His services to the United States won the gratitude of the nation during its struggle for independence. Luzerne co., in Pennsylvania, was named in his honor. In 1780 he lent his own private credit to obtain a loan for the relief of the American army, and congress voted him the thanks of the nation, which was reiterated by request of gen. Washington in 1789. He died while ambassador at London.

LUZZATTO, MOSE CHAYIM, 1707-47; b. Italy; a Jewish mystic, who devoted himself to the study of Hebrew literature, especially the cabalistic writings. Having declared himself the Messiah, he was excommunicated, and took refuge in Holland, but afterwards removed to Palestine, where he died. He published a second book of the *Zohar*.

LUZZATTO, SAMUEL DAVID, 1800-65; b. Italy; a distinguished Jewish scholar, and professor of biblical exegesis in the rabbinical school at Padua from its foundation in 1829 till his death. He published *Dialogues on the Cabala, the Zohar*, etc.; a *Hebrew Grammar*; *Hebrew Notes on the Pentateuch*; *French Notes on Isaiah*; an Italian translation of Job; and of Isaiah, with a commentary in Hebrew.

LYCAON, legendary king of Arcadia, son of Pelasgus and Melibæa, or Cyllene. He had many sons, some say fifty, others only twenty-two. According to the tradition of the Arcadians, he first introduced the worship of Zeus as the supreme being, founding Lycosena on the top of Mt. Lyceus. It is said that he offered human beings on the altars of Zeus. Jupiter, hearing of the impiety of Lycaon and his sons, came down to examine the truth of the report. They placed before him part of the body of a child dressed for dinner, when Zeus in horror and indignation struck with lightning the father and sons, except Nyctimus. Another account is that for their impiety they were changed into wolves. Some say that the flood of Deucalion, which occurred soon after, was in consequence of the crimes of Lycaon's sons.

LYCOMING, a co. in n. Pennsylvania, intersected centrally by Lycoming creek, watered also by Loyalsock creek in the s. and Pine creek with its branches in the w., all affluents of the w. branch of the Susquehanna river; 1250 sq.m.; pop. '80, 57,482-52,725 of American birth, 970 colored. Its surface is mountainous, particularly in the s. and w. sections, where it rises into a range of the Alleghany mountains, presenting very attractive scenery. Its surface is largely covered with forests of hard wood, and timber is one of its chief commodities. Its soil in the valleys is fertile, and produces every variety of grain, tobacco, wool, dairy products, honey, and maple sugar. Cash value of farms in '70, \$11,212,366, numbering 2,640. Value of live stock in '70, \$1,244,900. It had in '70, 608 manufacturing establishments, with a capital of \$7,875,938, and an annual product of \$9,081,406. Among its mineral products are black marble, limestone, iron, and coal. It had in '70, one coal mine, employing 30 hands, with a capital of \$185,000,

and an annual product of \$4,000. Its manufactures are represented by machine shops, lumber, flour, and paper mills, plow factories, tanneries; also manufactories of pumps, wagons, chairs, sashes, doors, and blinds, clothing, rectified coal oil, extract of hemlock bark. Near its county seat, above a suspension bridge that spans the stream, is the great Susquehanna boom, coasting \$1,000,000, which will hold 300,000,000 ft. of lumber. It is traversed by the Northern Central railway, the Muncy Creek railroad, the Philadelphia and Erie, the Catawissa and Williamsport railroad, and the West Branch canal, the latter principally used in the transportation of coal. Seat of justice, Williamsport.

LYCON, a Greek philosopher; B.C. 300-226; b. in Laodicean Phrygia. He was a philosopher of the school of Aristotle, was at the head of that sect B.C. 270, and succeeded Aristotle, Theophrastus, and Strato in the school which they had taught at Athens. He is described as a very successful instructor, discarding corporal punishment, and inciting the pupil by appealing to his honor. His eloquence was so persuasive and melodious that his contemporaries prefixed the letter G to his name, making it *Glycon*, which denotes *sweetness*. He conducted the school with great ability for 42 years. From Cicero we learn that he wrote on the boundaries of good and evil, and a work of his on the nature of animals is quoted by Apuleius.

LYCOPHRON, a distinguished poet and grammarian; b. Chalcis in the island of Eubœa, B.C. 280. We know but little of his private history. He lived at the court of Ptolemy Philadelphus, where he was one of the seven poets, known by the name of *Pleiad*. He wrote many tragedies, of which Suidas has preserved the titles of 19, but the works are lost, except *Cassandra* or *Alexandra* of 1474 lines. This is, however, hardly a drama, as Cassandra is the only speaker. She gives an account of nearly all the leading events in Greek history. It is written in iambic in a style very obscure, and has no poetical merit. The best edition is by Bachman. He is said to have written also some satires and comedies.

LYCURGUS, B.C. 400-323; b. Athens; was one of the renowned orators of Greece. In his early years he studied philosophy under Plato, and the political constitution of his country under Isocrates. In 343 B.C. he took an active part in political affairs, and was one of the ambassadors with Demosthenes appointed to counteract the intrigues of Philip in different parts of Greece. He was appointed to preside over the public revenue for four years, and so much confidence had the people in his integrity that he was continued in the office for 12 or 15 years. Lycurgus was one of the 10 orators demanded by Alexander after the destruction of Thebes, but the Athenians refused to give him up. He was buried in the Academia. Fifteen years after his death, upon the ascendancy of the democratic party, a decree was passed by the Athenians that public honors should be paid him; a brazen statue of him was erected in the Ceramicus, and the representative of his family was allowed the privilege of dining in the Prytaneum. The monument recited his uncorrupted fidelity. Many persons confiding in his honesty intrusted to his custody large sums of money. Böckh considers him the only statesman of antiquity who had a real knowledge of the management of finance. He greatly increased the revenue, erected many public buildings, completed the docks, the armory, and the theater of Bacchus. After the defeat of the Greeks at Cheronea, 338 B.C., he caused the prosecution and condemnation of Leocrates, an Athenian general, for abandoning Athens after the battle, and settling in another Grecian state. In the time of Plutarch and Photius 15 of his orations were extant; but the only one preserved is that against Leocrates.

LYDDA, a t. of Palestine, in the tribe of Ephraim, 9 m. e. of Joppa, on the road between that place and Jerusalem. It is called in the Old Testament and the Apocrypha, Lod, and was built by the Benjamites. In the New Testament it is noticed as the place where Peter healed Æneas. Some years later it was burnt by Cestius Gallus in his march against Jerusalem. Rebuilt, it was at the head of one of the toparchies of the later Judea. It is described by Josephus as being at that time equal to a city, and the rabbins speak of it as a seat of Jewish learning. It was afterwards destroyed by Vespasian, but rebuilt by Hadrian and called Diospolis, under which name it occurs on the coins of Severus and Caracalla. It was a well-known and much frequented place in the time of Eusebius, 320-30. It was early the seat of a bishopric. In 415 a council of 14 bishops was held here, before which Pelagius was accused of heresy, but acquitted. The last bishop of Lydda was Apollonius. The celebrated St. George is said to have been born at Lydda, and suffered martyrdom at Nicomedia under Diocletian and Maximilian at the end of the 3d c.; it was reported that his remains were transferred to Lydda, and that a church was erected in his honor by the emperor Justinian. This church having been destroyed by the Moslems, was rebuilt by the crusaders, who established a bishopric of Lydda and Ramleh. The crusaders invested St. George with the dignity of their patron, and he thus became the patron saint of England and other states and kingdoms. The church was destroyed by Saladin in 1191, the ruins of which are in the eastern part of the town. The western part of the church has been built into a large mosque. As the city of St. George it is held in great honor by the Moslems. From the time of Saladin but little notice is taken of it by travelers. It is in a

fruitful plain, 3 m. e. of Jaffa, under the name of Ludd, or Lidd, and, for a Moham-
medan town, has some activity in business.

LYDGATE, JOHN, 1375-1460; b. England; educated at Oxford and ordained in 1397. He traveled on the continent and studied Italian and French literature, particularly the works of Dante, Boccaccio, and Alain Chartier. On his return to England he opened a school in his monastery. He was not only a *belles-lettres* scholar, but familiar with theology, philosophy, and astronomy. His poetical writings are voluminous, and we may mention *The History of Troy*, *The Story of Thebes*, and *The Fall of Princes*, the latter a translation from a French version of Boccaccio's *De Casibus Virorum Illustrium*. The *History of Troy* or *Troye-Book* is a paraphrase of Guido de Colonna's *Historia Trojana*. A collection of his minor poems edited by J. O. Halliwell, was published by the Percy society in 1840.

LYGO'DIUM, a genus of climbing ferns; fronds twining or climbing, bearing stalked and variously-lobed divisions in pairs, with free veins; fructification upon separate divisions, narrower than those which are sterile, and bearing upon the back two rows of scale-like inclusions, each of which generally covers only a single spore-case, which has a ring at the apex and opens by a longitudinal slit. There are several species which are natives of warm countries. Only one species is found in North America from Massachusetts to Kentucky, south of which it is rare, and much more abundant in Kentucky than eastward. The fronds are from one to four ft. high, and spring from slender running root-stocks, climbing upon other plants. It is a very delicate and graceful fern, and is much used for ornamental purposes, both fresh and dried. It grows in shaded or moist grassy places. A favorite locality is East Windsor hill, Conn., also the vicinity of Hartford, and of Springfield, Mass.

LYMAN, a co. in s. Dakota, having the Missouri river for its e. border, is watered by the White river and its branches, emptying into the Missouri; 700 sq. m.; pop. '80 (combined with a part of Aurora, Buffalo, and Presho counties), 232. It is largely taken up by Indian reservations, but much of it is rich bottom lands, with excellent grazing pastures on the bluffs, and a large proportion of good prairie land. It is well timbered for that section of the country.

LYMAN, CHESTER SMITH, b. Manchester, Conn., 1814. Becoming interested as a boy in astronomy and the kindred sciences, he studied them without a master, constructing for himself optical and astronomical apparatus, making almanacs for 1830 and 1831, and computing eclipses 15 years in advance. He graduated at Yale in 1837, and, after teaching two years, studied theology at the Union seminary (New York) and the Yale divinity school; was pastor of a Congregational church in New Britain, Conn., 1843-45; on account of failing health in 1845 went to the Sandwich Islands, where he taught the royal school, having as pupils four young men who afterwards successively occupied the Hawaiian throne. He went to California in 1847, whence he sent to the eastern states some of the earliest authentic accounts of the discovery of gold. In 1850 he settled in New Haven, engaging in scientific pursuits. He was one of the revisers of Webster's *Dictionary* (edition of 1864), taking charge especially of scientific words. In 1859 he became professor of industrial mechanics and physics in Yale college, taking an active part in organizing the Sheffield scientific school, in which he was the astronomical teacher. He has been a contributor to the *American Journal of Science*, the *New Englander*, and other periodicals, and is the author of various useful inventions, among which are a wave apparatus and a pendulum apparatus for acoustic curves. He is a member of various scientific bodies; among them, the British association for the advancement of science.

LYMAN, HENRY, 1810-34; b. Mass.; graduated Amherst college, 1829; Andover theological seminary, 1832; studied medicine at Boston and at Brunswick, Me.; sailed with the rev. Samuel Munson from Boston, 1833, as a missionary of the American board, with instructions to explore the Indian archipelago. They landed at Batavia in September; in April, 1834, they visited Padang, the Battoo group, Pulo Niyas, and Sumatra. Here they undertook to reach the Battas of the interior. They were dissuaded on account of rumors of war, dangers from wild beasts, and other hardships of the journey; but proceeded on foot with a few native attendants. Five days brought them to the village of Sacca, which was at war with a neighboring village. Before they could explain their errand they were surrounded by 200 armed men, and notwithstanding that they gave up the arms which they had taken for defense against wild beasts, Mr. Lyman was shot and Mr. Munson pierced with a spear. When the people of the neighboring villages learned by the reports of natives on the road that the strangers were good men who sought to benefit the Batta people, they combined to avenge their death, and surprised and destroyed the village of Sacca, killing many of the inhabitants. The report that the bodies of these missionaries were eaten is thought to be incorrect. Mr. Lyman published *Condition of Females in Pagan Countries*. Among the Battas whose country the martyrs attempted to explore, the Rhenish missionary society established a mission in 1861, which now has eleven stations and 1500 baptized converts.

LYMAN, PHINEAS, 1716-75; b. Conn.; educated at Yale, and admitted to the bar. Appointed commander-in-chief of the Connecticut forces in the French war he founded

fort Lyman, now fort Edward, New York; at the battle of lake George took command of the colonial forces after sir William Johnson was wounded; was present at the capture of Crown Point and Montreal; and in 1762 was at the head of the colonial troops in the expedition against Havana. From 1763 to 1774 he was in England, endeavoring to get a grant of land along the Mississippi from the government. A tract in the vicinity of Natchez was granted to the company for which he was agent, in the latter year; and he took over a company of immigrants, but died soon after arriving in west Florida.

LYMAN, THEODORE, 1792-1849; b. Boston; graduated at Harvard in 1810; visited Europe in 1814, and published in the same year a small volume, *Three Weeks in Paris*. After studying law he made a second visit to Europe, returning from which he published in 1820 *The Political State of Italy*. In 1820 he was Boston's chosen orator for the Fourth of July. In 1823 he wrote an *Account of the Hartford Convention*, defending its proceedings and the motives of the men who called it. In 1826 he published *The Diplomacy of the United States with Foreign Nations*. He was an active politician, and served in both branches of the legislature. From 1832 to the close of 1835 he was mayor of Boston, and in August of the latter year presided at the great pro-slavery meeting in Faneuil hall, the proceedings of which so inflamed the disorderly spirit of the time that a mob of "gentlemen of property and standing," a few weeks later, broke up a meeting of anti-slavery women, and was with difficulty prevented from taking the life of William Lloyd Garrison. The mayor, instead of seeking to disperse the mob, ordered the ladies, who had peacefully assembled for anti-slavery discussion and prayer, to give up their meeting and retire to their homes; but when he found that Mr. Garrison was in the hands of the mob and likely to be killed, he made an earnest and successful effort for his rescue, and committed him to jail to save his life.

LYMAN, THEODORE BENEDICT, D.D., b. Mass., 1815; educated at Hamilton college and the general theological (Prot. Epis.) seminary of New York, and ordained in the Episcopal church. He was rector of churches in Hagerstown, Md., Pittsburg, Penn., of the American churches at Rome and Florence, and of Trinity church, San Francisco. In 1873 he was elected assistant bishop of North Carolina.

LYNCH, HENRY BLOSSE, 1798-1873; b. Ireland; entered the navy in 1823, and served in the east for most of the time till his retirement in 1854. He was familiar with Persian and Arabic, and in the early part of his career acted as interpreter, and carried on negotiations with native tribes. He was next in command to col. Chesney, in the Euphrates expedition of 1834, and subsequently held command in the Indian navy.

LYNCH, PATRICK NILSON, D.D., b. Cheraw, S. C., 1817; studied theology in the Roman Catholic seminary at Charleston in 1834, and in the college of the propaganda at Rome; was ordained priest in 1840; returned to Charleston, and was appointed rector of the seminary and professor of theology. After serving as rector of St. Mary's parish and of the cathedral, he became vicar-general in 1850; was appointed by the pope in 1857 bishop of Charleston. During his administration he built the fine cathedral of St. Michael's and other churches, founded an Ursuline convent and an orphan asylum, and established many schools. Some of these having been destroyed in the war, he has traveled extensively in the north since 1865 collecting funds for their restoration. He has published some theological and scientific essays. In 1869 he was a member of the Vatican council, and sustained the dogma of papal infallibility.

LYNCH, THOMAS, JR., 1779-1849; b. S. C.; educated in England, where he studied law. Returning to South Carolina in 1772, he became identified with the resistance of the colonies to Great Britain; was elected to the continental congress in 1776, to fill a vacancy occasioned by the death of his father, and was one of the signers of the declaration of independence.

LYNCH, WILLIAM F., 1801-65; b. Va.; an officer in the naval service of the United States. In 1848 he conducted a valuable official survey of the Jordan river and the Dead sea. He became commander in 1849, captain in 1856, and deserted to the confederacy in 1861, in which service he was given the rank of commodore.

LYNCHBURG (*ante*), situated on the s. bank of the James river, and on the James river and Kanawha canal. It is 90 m. from Richmond, and is the point of junction of the Atlantic, Mississippi and Ohio, and Washington City, Virginia Midland and Great Southern railroads; pop. '80, 15,959. The situation of the city is picturesque and romantic in the extreme. Here a steep acclivity rises gradually from the banks of the river, breaking into numerous hills as it completes its elevation, whose terraced walks, ornamented with trees and skirting handsome dwellings, present a most pleasing appearance. In the background, at a distance of 20 m., but fully in view, rise the Blue Ridge and the Peaks of Otter, standing in bold relief against the sky. This city derives its chief importance from being the center of an enormous tobacco manufacture, and on account of its comprehensive railroad facilities. Vast fields of coal and iron-ore are in the immediate neighborhood, and not far are the celebrated Botetourt iron-works. Lynchburg dates back to 1786. It was used as a base of supplies by the confederates during the rebellion. Its public buildings are numerous and well built; it possesses a thorough public school system, with graded and high schools; and has 13 churches and chapels.

LYNCH LAW (*ante*) is said to have derived its name from one James Lynch, a farmer in Piedmont co., Va. As there was no regularly established court of law in the vicinity, the inhabitants were in the habit of bringing disputed questions, or the trial of criminals, before Lynch, who gave summary judgment according to his opinion of the facts, without any too strict adherence to the letter of the law. From the frequency with which he performed the duties of a judge, he came to be known as "judge" Lynch, and his name was given to the custom of violent, unauthorized trial and execution which has sprung up in the new and turbulent communities of the west and south in this country. It has gradually disappeared from most of those communities as their population has increased, and now lingers in only the least advanced of them. In a new country, in which justice cannot be administered, it seems sometimes a necessary evil. Though the name is commonly considered to have had its origin as described, its real origin is entirely problematical. It is also ascribed to other persons of the name of Lynch; one, the founder of the town of Lynchburg, Va.; the other, a person sent to this country from England, in the 17th c., under a commission to suppress piracy, and who is credited with having faithfully carried out his instructions to execute, without the formality of a trial, any pirate whom he could capture. According to another account, lynch law owes its name to James Fitzstephens Lynch, who was mayor of Galway in 1493. He carried on an extensive trade with Spain, where he sent his son, with a large sum of money, to buy wine. Young Lynch spent the money, but bought a cargo on credit from a Spanish merchant, whose nephew came to Ireland on the ship with young Lynch to collect the money. Lynch, to cover his own crime, threw him overboard. The murder was revealed by a sailor to the mayor of Galway, who tried and condemned his son; and when his family attempted to prevent the sentence from being carried into effect, himself acted as his son's executioner. Lynch law was anciently known in England by the name of Lydford law. Lydford, in Devonshire, was a walled town, with a castle, wherein the courts of the duchy of Cornwall were held. Persons accused of violating the laws of the duchy were imprisoned in so foul a jail, before being brought to trial, that Lydford law became a proverbial expression for summary punishment without trial. The same thing was variously called, in Scotland, Cowper law, Jedburgh justice, etc.

LYNDON, a t. in Caledonia co., Vt., on the Connecticut and Passumpsic railroad, 40 m. e. of Montpelier, and about the same distance s. from the Canada line; pop. 2,179; has 5 churches, a college under Baptist control, a large and flourishing academy and graded school, a national bank, a weekly newspaper, the offices and repair-shops of the Connecticut and Passumpsic railroad, several carriage factories, mills, stores, shops, etc.

LYNN (*ante*), a city in Massachusetts, settled 1629, incorporated 1850; extending for 3 m. along the Atlantic shore, having a small harbor lying w. of the peninsula of Nahant, in the n. portion of Massachusetts bay; about 10 sq.m.; pop. '80, 38,284. It is directly connected with Boston by the Boston, Revere Beach and Lynn narrow-gauge railroad, and by a horse railroad. The Eastern railroad passes through it, connecting it with Salem, 5 m. away. It is the terminus of the Saugus to Everett branch of the Eastern railroad, and is 2 m. from the watering-place of Nahant. It contains a free public library of about 19,000 vols., and 3 handsome and commodious halls, besides a fine brown-stone city hall, costing \$311,722. The capital of its 3 national banks, collectively, is \$1,000,000. It has 2 fire insurance companies. Many fine brick buildings for the purposes of manufacture and trade have been erected, but the residences are mostly of wood. A large number of beautiful villas are occupied by residents of the neighboring cities, who find the beach a great attraction. The n. section is thinly settled, and thick forests appear in the suburbs. Its shipments to the s. and w. of boots, shoes, and brogans, as estimated for one year, amounted to 10,000,000 pairs, worth \$18,000,000. The beginning of its prosperity was in 1750. The present capital employed is estimated at \$1,000,000, occupying 200 establishments, and using the McKay sole-sewing machine. The leather interest employs \$500,000 capital, some of the factories tanning and finishing 5,000 skins a week. The Saugus river flows along the w. boundary, emptying into the harbor, and its e. boundary is formed by a succession of lakes or ponds called Flax, Cedar, etc. In the center of the city is a hill called High Rock, 185 ft. in height, belonging to a range of hills that forms its n. background. The rest of the city is built on flats but a few feet from the water level. It has a beautiful common and a number of little public parks, and 2 cemeteries, called Pine Grove and St. Mary's, laid out in a picturesque manner, and ornamented with rare flowers, which are tended with care. Two ponds, Breed's and Birch, supply the waterworks, built at a cost of \$800,000, requiring 2,000,000 galls. per day. The apparatus used is of the best for the purpose, and the reservoir-pressure is 177 ft. It has a soldiers' monument of bronze and granite, costing \$30,000, dedicated in 1873. It has a considerable coasting trade, and is engaged in fishing. Its city government is composed of a mayor, board of aldermen with 8 members, and a common council of 22. It has a well-organized fire department, with an electric alarm, and its school buildings are on the best modern plan as to ventilation, modes of egress, etc. It has 8 evening schools. It holds the remains of the original iron-works of America in the shape of an ancient forge, and it is the place where the first fire-engine was made. It originally comprised the town of Swampscot, organized in 1852, and Nahant, organized in 1853. In

1861, at the call of the state for troops, it returned the significant response, "We have more men than guns; what shall we do?"

LYON, a co. in n.w. Iowa, having the state line of Minnesota for its n.e. boundary, the territorial line of Dakota for its n.w., the Sioux river, an affluent of the Missouri, for its w. border, forming a part of the Dakota line; 650 sq.m.; pop. '80, 1968—1551 of American birth. It is drained by Rock river, sometimes called Inyan Reakah (river of the rock), and the East fork. Its surface is formed of undulating prairies nearly destitute of timber; extensive willow hedges have been planted in certain sections. Sioux quartzite is found in the w. portion. Its soil is fertile and well adapted to stock-raising, and the production of oats, corn, wheat, and potatoes. Its inhabitants are principally engaged in agriculture. Seat of justice, Rock Rapids.

LYON, a co. in e. Kansas, intersected by the Missouri, Kansas and Texas railroad, and the Atchison, Topeka and Santa Fe railroad, forming a junction at Emporia; 850 sq.m.; pop. '80, 17,327—15,416 of American birth, 1029 colored. It is drained by the Neosho river, Osage river in the extreme n.e., and Cottonwood creek. Its surface is undulating, and adapted to stock-raising and the production of every variety of grain, tobacco, wool, sweet potatoes, dairy products, and sorghum. It produced in '70, 2,252 lbs. of honey. Along the water-courses are small groves of oak, hickory, cottonwood, and walnut, but the larger proportion is open prairie land with under-strata of limestone, beds of bituminous coal, and every element of fertility. Cash value of farms in '70, \$2,551,968, numbering 792. It had in '70, 11 manufacturing establishments, consisting of flouring-mills, saw-mills, brick kilns, foundries, broom factories, furniture, soap and cheese factories, and woolen mills. Seat of justice, Emporia.

LYON, a co. in w. Kentucky, having for its s.w. boundary the navigable Tennessee river, and for its n.w. the river Cumberland, which also is an important commercial channel flowing through it centrally, and through one of its affluents forming the n. border; 320 sq m.; pop. '80, 6,768—6,723 of American birth, 1488 colored. It is intersected by the Paducah and Elizabethtown railroad. Its surface is generally level and well timbered; containing rich beds of coal and iron ore. Its soil, fertile along the water-courses, is adapted to the raising of stock, for which this region is famous. It has good pastures throughout the year, and produces oats, corn, rye, wheat, and the products of the dairy, tobacco, wool, sweet potatoes, wine, and sorghum. It produced in '70, 4,493 lbs. of honey. It has manufactories of hubs and spokes, rolling mills in which boiler iron is manufactured, lime kilns, etc. It had in '70, 11 manufactories, employing 217 hands, with a capital of \$413,000, and an annual product of \$560,360. Seat of justice, Eddyville.

LYON, a co. in s.w. Minnesota, having the Yellow Medicine river, a branch of the Minnesota, in the extreme n., near the boundary line; also the head waters of two other branches, the Redwood and Big Cottonwood; 720 sq.m.; pop. '80, 6,257—4,558 of American birth, 2 colored. Its surface is rolling, and spreads out into fertile prairies, diversified by numerous small lakes. It is intersected centrally by the Winona and St. Peter railroad, crossing all the rivers. It has manufactories of brick and lumber. Seat of justice, Marshall.

LYON, a co. in w. Nevada, intersected centrally by the Carson river, is bounded on the n.w. by the Washoe mountain range, and drained by a lake in the s. portion; 480 sq.m.; pop. '80, 2,409—1191 of American birth, 396 colored. Its surface is mountainous, with very few trees. It contains a part of Carson valley and Walker river valley, having a very fertile soil and affording good pasturage. It produces oats, corn, and potatoes, and yields immense quantities of silver. Its leading industries are lumber-sawing and the milling and smelting of ores. Gold, borax, salt, and copper are abundant. Its manufacturing establishments are mostly iron foundries and machine shops, of which in '70 it had 24, employing 387 hands, with a capital of \$537,500, and an annual product of \$1,830,165. Seat of justice, Dayton.

LYON, CALEB, LL.D., 1822-75; b. at Lyonsdale, N. Y., a place founded by his father; graduated at Norwich (Vt.) university in 1841; traveled in Europe; was appointed by president Polk consul at Shanghai, China. After returning home he visited Mexico, Brazil, Chili, Peru, and other countries; was in California in 1849, serving as secretary of the constitutional convention, and designing the coat-of-arms of that state; made a second visit to Europe, going also to Egypt and Palestine; identified himself with the "Koszta affair" at Smyrna; was elected to the New York assembly and afterwards to the senate; was a member of congress in 1853-55; and governor of Idaho territory in 1864-66.

LYON, GEORGE FRANCIS, 1795-1832; b. Chichester, Eng.; entered the navy at the age of 13; joined the squadron of lord Exmouth for the attack on Algiers in 1816; accompanied the traveler, Joseph Ritchie, in his expedition to n. Africa in 1818. After many privations and perils in exploring Soudan, the course of the Niger, etc., he returned to England in 1820, and published his *Narrative of Travels in Northern Africa*. In 1821, in command of the *Hecla*, he accompanied capt. Parry in his voyage of discovery to Hudson's bay. Returning in 1823 he published in London an account of the

expedition. In 1824 he made an unsuccessful voyage with the *Griper* to Repulse bay in the Arctic regions, of which he gave an account in 1825. In 1826 he traveled in Mexico, spending some time in surveying its mines. Besides the works mentioned he published, *The Sketch Book of Capt. F. G. Lyon during Eighteen Months' Residence in Mexico*, No. 1, and *Journal of a Residence and Tour in the Republic of Mexico in 1828*.

LYON, MARY, 1797-1849; b. Mass.; in early life conscientious and noted for the ease with which she comprehended and memorized her lessons. At the age of 20, besides keeping up with her classes in their regular lessons, she daily committed and accurately recited so much of Adams's Latin grammar as it was usual for scholars to learn within three days. From 20 to 26 years of age we find her, now teaching to add to her scanty patrimony, now expending all she possessed in some one line of effort for mental improvement. In 1822 she united with the Congregational church in Buckland, Mass. Her schools in Ashfield and Buckland were noted for their religious influence and superior mental training. In 1824 she joined Miss Grant as assistant principal in her school in Derry, N. H. To her she ascribes the suggestion of some of those principles and methods which were so wisely and successfully tested in their schools in Derry and Ipswich, and also at South Hadley, and which were adopted later in Rugby, Eng., and in other institutions. They aimed to induce the pupils to govern themselves instead of being constrained by penalties, to act as under the eye of the heavenly Father, to aspire for the happiness which springs from doing good to others, even at a temporary sacrifice. For these ends the Bible was made one of the regular text-books of the school. In 1830 Miss Lyon became interested in the idea, then new in this country, at least among Protestants, of a *permanent* seminary for girls "with buildings, library, and apparatus, owned as colleges are, where successive generations of young ladies might be trained." She made great effort to secure this, but the object was not appreciated. She changed her plan. She now proposed to found an institution which should offer a thorough education on such terms as would be available for young women of moderate means. To preserve habits of home industry, to inspire a spirit of true independence and wise economy, it was her plan that the domestic tasks of the household should be so divided and arranged that each could perform a daily share without taking more time from study than was necessary to give healthful exercise. No sooner was this design announced than general attention to it was aroused. Many opposed; many also approved. Miss Lyon's patient and diligent elucidation of her design overcame objection. The money needed was given with enthusiasm. South Hadley, near Mt. Holyoke, was chosen as the site of the seminary. In 1837, buildings and necessary accommodations for 80 pupils being nearly completed, the school opened with more than that number. It was afterwards enlarged to receive 300 pupils. The remaining twelve years of Miss Lyon's life were devoted to this school. More than 60 of her pupils have engaged in missionary work among the women of heathen lands, and hundreds more have reflected Miss Lyon's example and influence, which they found in the schools. In all her schools together she taught 3,000 pupils. She wrote *Tendencies of the Principles Embraced and the System Adopted in the Mount Holyoke Female Seminary*; also, *The Missionary Offering. The Power of Christian Benevolence Illustrated in the Life and Labors of Mary Lyon* was compiled by Edward Hitchcock, D.D., LL.D., and published in 1851. An abridgment of this work was issued by the American tract society in 1858. Mary Lyon was the pioneer of the highest culture of American womanhood. Not beautiful in appearance, there was little that told of the energy, persistence, sagacity, and withal great tenderness and constant cheerfulness, combined with rare administrative talent, that sustained and carried through her great work. She planted the seed of which Vassar, Wellesley, Smith, and sister colleges are the fruits.

LYON, MATTHEW, 1746-1822; b. Wicklow co., Ireland; emigrated to New York in 1755; unable to pay for his passage he was committed by the captain, according to the custom of the time, to a farmer in Connecticut, with whom he served several years; subsequently removed to Vermont; became, 1775, lieut. in a company of "Green Mountain Boys;" was cashiered the latter part of the year for deserting his post; was in 1777 temporary paymaster of the northern army; subsequently commissary-general and col. of militia; founded the town of Fairfield, Vt., in 1783; built saw-mills and grist-mills, established a forge, made paper from basswood, established and edited a paper called *The Scourge of Aristocracy and Repository of Important Political Truth*, the types and paper of which were made by himself. He was ten years a member of the legislature, and in 1786 judge of Rutland co. court; became a zealous politician, and was elected to congress by the anti-federal party, 1797-1801; was convicted in 1798 of libel on president Adams, imprisoned four months in the Vergennes jail and fined \$1000, which was paid by his friends. An attempt to expel him from congress as a convicted felon failed. While in congress he had a violent personal encounter with Roswell Griswold of Connecticut. After the expiration of his term as representative he removed in 1801 to Kentucky; was elected to the legislature, and to congress in 1803-11; built gunboats on speculation for the war of 1812, and became bankrupt; was appointed by president Monroe in 1820 U. S. factor for the Cherokee Indians in Arkansas, and elected territorial delegate to congress a short time before his death.

LYON, NATHANIEL, 1819-61; b. Conn.; a student at West Point, graduated in 1841. He continued in the army, and was employed in active service during the Mexican and Florida wars, and afterwards served in Kansas and on the frontier. Being in command of the U.S. arsenal at St. Louis in 1861, at the outbreak of the rebellion, he dispersed the secessionists collected by the governor, Jackson, and soon after attacked and defeated a rebel force at Boonesville, June 17, 1861. He was now made a brig.gen., and on Aug. 2 won another victory over a detachment of confederate troops at Dry Spring, near Springfield, Mo., and a week later fought the battle of Wilson's Creek, where he was shot and instantly killed. He won the first successes of the war, and his loss was greatly deplored by the army and by the northern people. He still further signalized his patriotism by bequeathing nearly his entire possessions, about \$30,000, to the government, to be employed in forwarding the objects of the war. A collection of articles written for a Kansas newspaper in 1860 was published after his death under the title, *The Last Political Writings of Gen. Nathaniel Lyon*.

LYONS, the ancient *Lugdunum*, was founded in the year 43 B.C. by Munatius Plancus. Under Augustus it became the capital of the province *Gallia Lugdunensis*, possessed a senate, a college of magistrates, and an atheneum, and became the center of the four great roads that traversed Gaul. In 58 A.D., it was destroyed in one night by fire; but was built up again by Nero, and embellished by Trajan. In the 5th c., it was one of the principal towns of the kingdom of Burgundy; and in the 11th and 12th centuries, it had risen to great prosperity. To escape the domination of the lords and archbishops, the inhabitants placed themselves under the protection of Philippe-le-bel, who united the town to France in 1307. After the revolution (1789), Lyons, which had at first supported the movement with great enthusiasm, eventually became terrified at the acts of the central power, and withdrew from the revolutionary party. The result of this was, that the convention sent against Lyons an army of 60,000 men, and after a disastrous siege, the city was taken, and almost totally destroyed. It rose again, however, under the first Napoleon; and though, since then, it has frequently suffered much from inundations (1840 and 1856), and from the riots of operatives (1831 and 1834), it is now in a high state of prosperity.

LYONS, a city of Iowa, in the co. of Clinton, on the Mississippi river and the Midland and Dubuque railroad, and only 2 m. distant from the Northwestern, the Western Union, and a branch of the Chicago, Burlington and Quincy railroads; pop. 4,088. It is connected by a steam ferry with Fulton, Ill., and is traversed by a horse railroad. It has a paper-mill, saw-mills, sash factories, flouring-mills, machine-shops, carriage-shops, etc.; also 2 newspapers, 8 churches, a library, a seminary, and graded public schools. It is surrounded by a fine farming country.

LYONS, a t. in Wayne co., N. Y., on the N. Y. Central railroad and the Erie canal, nearly midway between Syracuse and Rochester; pop. '70, 5,115. The manufacture of oil of peppermint is an important industry, there being 20 peppermint distilleries, producing annually 100,000 lbs. of the oil. There are other manufactures; tobacco, grain, cider, and apples are among the productions.

LYONS, EDMUND, Lord Lyons, 1790-1858; b. at Burton, Hampshire, England; a descendant of governor John Winthrop of Massachusetts; entered the British navy in childhood, and became a midshipman in 1803; served in the East Indies, becoming a commander in 1812, and a post-captain in 1814. In 1828 he was engaged in the blockade service at Navarino, Greece, then held by the Turks, and conveyed king Otho to Athens when the new kingdom was established; was knighted, and remained there as minister 14 years. In 1849 he became minister at Bern, and in 1851 at Stockholm. At the outbreak of the Crimean war he was appointed second in command of the Black sea squadron and commander-in-chief in 1854, and so distinguished himself by brilliant service that he was made a peer in 1856 under the title of baron Lyons of Christ church. Died at Arundel castle, Sussex.

LYONS, RICHARD BICKERTON PEMELL, D.C.L., Lord Lyons, b. England, 1817; educated at Winchester and Oxford, and entered the diplomatic service in 1839 as unpaid attaché at Athens. He was transferred to Dresden in 1852; to Florence, where he acted as secretary of legation, in 1853; and was made envoy to Tuscany in 1858. The same year he was sent as envoy extraordinary to the United States, and on his recall, at his own request, in 1865, he was made ambassador to Turkey, and in 1867 transferred to Paris, where he remains. In his successive important appointments he has proved himself an accomplished and skillful diplomatist.

LYONS, GULF of, in the Mediterranean, extending from the n.e. coast of Spain, on the w., to Toulon on the e., and receiving the Rhone, Hérault, Aude, and other rivers. It is subject to furious storms, and is said to have received its name, after the lion, on account of this circumstance. A portion of Catalonia, in Spain, and the departments in France of Pyrénées-Orientales, Aude, Hérault, Gard, Bouches-du-Rhone, and Var, lie on the coast of this gulf.

LYRA, NICHOLAS DE, 1270-1340; b. Lyre, Normandy, France; studied in the Franciscan college at Verneuil, and at the university of Paris; became a doctor of divinity and eminent as a lecturer upon biblical interpretation. His thorough acquaintance with

Hebrew led to the erroneous supposition that he was a Jew. He belonged to the Franciscan order, in which he held the most eminent positions, and his commentaries upon the Scriptures were in high repute among the reformers. His chief work, *Postille Perpetue in Univerſa Biblia*, in 5 vols. folio, is the only exegetical work of any value produced in the middle ages anterior to the revival of letters. The schoolmen of that day seldom understood Greek, never Hebrew, and therefore were poorly equipped as biblical commentators. He also wrote a work *On the Coming of the Messiah*, in reply to Jewish critics. Died in Paris.

LYSIAS, a Syrian nobleman, whom king Antiochus Epiphanes, setting out for Persia, appointed guardian of his son and regent of the kingdom, in which capacity he waged a formidable war with the Jews. His great army was defeated by Judas Maccabæus near Emmaus, 166 B.C. In the following year he was repulsed near Bethsura, but captured the fortress in 163 B.C., and besieged Jerusalem, but was compelled to withdraw by an insurrection at Antioch, shortly after which he was put to death by the populace of the latter city, who had rebelled in favor of Demetrius Sotes.

LYSIAS, b. Athens, B.C. 458. He was one of the ten Athenian orators, and the contemporary of the most distinguished men of Athens—Thucydides, Xenophon, Euripides, and Sophocles. His father was a man of wealth, was intimate with Pericles and Socrates, and his house was the scene of the celebrated dialogue of Plato's *Republic*. At the age of 15 Lysias went to Thurium, in the s. of Italy, with an Athenian colony, accompanied by the historians Herodotus and Thucydides, remaining there 32 years, and studying the art of eloquence under the two Syracusans, Tisias and Nisias. After the failure of the Athenian expedition in Sicily, he was obliged to leave Italy. Returning to Athens in 411, he carried on with his brother Polemarchus a large manufactory of shields, in which they employed 120 slaves. Athens fell into the hands of Lysander, and 30 tyrants were appointed to administer the affairs of the city. The wealth of the two brothers excited the cupidity of the tyrants; their house was attacked by an armed force while they were entertaining some friends at supper, their property seized, Polemarchus put to death, and Lysias, by bribing some of the soldiers, escaped to Megara. In his oration against Eratosthenes, one of the 30 tyrants, he has given a graphic sketch of his escape. At Megara he assisted Thrasybulus to free his country from the tyrants, supplying him with a large sum of money from his own resources, and hiring 300 men at his own expense. The tyrants having been expelled, Lysias returned to Athens in 403, where he began his career as an orator. Of the 475 orations ascribed to him, only 235 are regarded as genuine, and only 34 are extant. Dionysius of Halicarnassus, in his critique of his works and style, says: "He was particularly distinguished for simplicity and precision, as well as for the fidelity with which he depicts the manners of the age." "In narrating events or circumstances," he considers Lysias "superior to all the orators." Quintilian compares him to "a clear and pure rivulet rather than to a majestic river." Cicero regards him as "the model of a perfect orator." The best editions of the orations of Lysias are those of J. Taylor (London, 1739), and of Reiske (Leipsic, 1722). Some of his orations have been translated into English by Dr. Gillies.

LYSIMACHIA, or LOOSESTRIFE, a genus of plants of the natural order *primulacæ*, or primrose family, said to be named in honor of king Lysimachus (perhaps from *λύσις*, a release from, and *μάχη*, strife). Calyx, 5-parted (rarely 6 to 7); corolla, wheel-shaped, 5-parted (or 6 to 7), sometimes of as many separate petals; stamens of like number; pod globose, 5 to 10 valved. They are leafy stemmed perennials, generally with yellow flowers, axillary, or in a terminal raceme. Species grow in nearly all parts of the world, several in the United States, some being cultivated in gardens, as the MONEYWORT (*L. nummularia*), which was introduced from Europe. In this the leaves are roundish, small, with short petioles; peduncles axillary, one-flowered; ovate, acute sepals. It is a beautiful plant for hanging-baskets and for covering rocks, and also for carpeting beneath shrubs, forming, as it does, a thick mat. In some places it has escaped from the gardens into damp ground. It blooms from July to September. There are eight species enumerated by Gray as occurring in the United States: 1. *L. thysiflora*, or tufted loosestrife; stem from 1 to 2 ft. high, lower leaves reduced to scales, the rest lanceolate, the axils of one or two pairs of the middle ones bearing a short-peduncled spike-like cluster of yellow flowers; found in cold, wet swamps from Pennsylvania northwards; blooms in June and July. 2. *L. stricta*: leaves opposite or nearly alternate, lanceolate, acute at each end; flowers in a long raceme from 5 to 12 in., and leafy at the base; in variety *producta*, leafy for half the length; in low grounds, blooming from June to August. 3. *L. quadrifolia*: leaves whorled, in fours or fives, ovate-lanceolate; flowers on long capillary peduncles from the axils of the leaves; a common plant in the middle states, growing in moist or sandy soil, blooming in June. 4. *L. ciliata*: stem from 2 to 3 ft. high, leaves lanceolate-ovate, tapering to an acute point, on long and fringed leaf-stalks; common in low grounds and thickets; blooms in July. 5. *L. radicans*: stem slender, soon reclined, and often taking root from the joints; leaves ovate-lanceolate, borne on slender leaf-stalks; grows on swampy river banks in West Virginia and southward. 6. *L. lanceolata*: stem erect, 10 to 20 in. high; leaves lanceolate, oblong, and also linear, narrowing into the short petiole; growing on low grounds, westward and southward; blooming from June to August. 7. *L. longifolia*: stem erect, 4 angled,

from 1 to 3 ft. high, often branched below; stem leaves sessile, linear, 2 to 4 in. long, smooth and shining, margins often revolute, veins obscure; corolla about $\frac{1}{2}$ of an inch in diameter, lobes pointed; grows in moist soil in western New York, Pennsylvania, to Wisconsin and Illinois; blooming from July to September. 8. *L. nummularia*, noticed above.

LYSIMACHUS, b. Pella, Macedonia, about 360 B.C.; a gen. of Alexander the great. He was a pupil of the philosopher Callisthenes, and was in his youth distinguished for bravery and physical strength. He was attacked by a lion in the forests of Syria, which he killed without assistance, from which probably originated the story told by Justin and Seneca of his being exposed to a furious lion and killing it by thrusting his cloak into its mouth. On the division of the empire at Alexander's death, 323, he received Thrace and the countries on the coast of the Euxine. He took possession of Thrace after conquering Seuthes, its king, and a powerful army. In B.C. 314 he joined the league formed against Antigonus by Ptolemy, Seleucus, and Cassander. In 306 he assumed the title of king. In 302 he was sent into Asia Minor to attack Antigonus, subduing on his way Phrygia, Lydia, and other places, taking possession of many strong fortresses in which Antigonus had collected immense treasure. On the approach of Antigonus he withdrew into Bithynia, where he was joined by Seleucus, and they, in 301, advanced against Antigonus and his son Demetrius. In the following year these two gens., aided by the forces of Ptolemy and Cassander, met Antigonus at Ipsus, where a fierce battle was fought; Antigonus was killed, and his dominions shared by the victors, Lysimachus obtaining the n.w. part of Asia Minor. In 292 he attacked Getæ, n. of the Danube, but was defeated, made prisoner, and released on giving his daughter in marriage to the king of the Getæ. In 288 he combined with Ptolemy, Seleucus, and Pyrrhus against Demetrius, who had invaded Thrace during his absence and captivity, drove him from Macedonia, became king thereof himself, and compelled Pyrrhus, who laid claims to the kingdom, to retire to his native dominions. The latter part of the life of Lysimachus was embittered by domestic dissensions and intestine troubles. Having put to death his son Agathocles at the instigation of his wife, Arsinoe, the daughter of Ptolemy, king of Egypt, who feared that on the death of Lysimachus she and her children would be put to death by Agathocles, his subjects rose in rebellion, and Seleucus, at the entreaty of the widow of Agathocles, attacked Lysimachus, who was killed on the plain of Corus.

LYSIPPUS, a celebrated Greek statuary; b. Sicyon, in the Peloponnesus; lived about 324 B.C. He was at first a workman in brass, then applied himself to the art of painting, and afterwards devoted himself to sculpture. He is said to have been self-taught, and excelled in the study of nature rather than in copying the manner of any master. His peculiarity was that of making the head smaller and the body more slender and easy than his predecessors had done. His statues were admired for the beautiful manner of executing the hair. His contemporaries appreciated his talents; the different cities were eager to obtain his works; and Alexander, while he conferred on Apelles the sole right to paint his form, allowed no one but Lysippus to execute it in bronze. He is said by Pliny to have produced 1500 works of art. Among the most celebrated was a statue called "Apoxyomenos," representing a man scraping himself in a bath with a strigil, the removal of which, by order of Tiberius, from the baths of Agrippa to the palace of the emperor so excited the people that he was compelled to replace it. He made many statues of Alexander, representing him at different periods of his life, and in various positions; also, the equestrian statues of 25 Macedonians who fell at the passage of the Granicus, which Metellus transported to Rome. He executed a fine bronze statue of Cupid, with a bow; several statues of Jupiter, one of which, 60 ft. high, is at Tarentum; one of Hercules, which was removed to Rome; the Sun, drawn in a chariot by four horses; "Opportunity" (Kairos), represented as a youth with wings on his ankles on the point of flying from the earth. The sons of Lysippus, Dahippus, Bodas, and Euthykrates were his pupils; also, the renowned Chares, who executed the Colossus at Rhodes.

LYSONS, SAMUEL, 1763-1819; b. Rodmarton, England; educated for the bar, but relinquished the law for antiquarian pursuits; was made keeper of the records of the tower of London in 1803, and one of the directors of the society of antiquarians in 1812. He published, in 1797, *Roman Remains Discovered at Woodchester and Minchenhampton*; in 1801, his *Figures of Mosaic Pavements*; in 1802, his *Remains of Roman Antiquities at Bath*; in 1804, *Gloucester Antiquities*. He wrote also for the *Archæologia*; and assisted his brother Daniel in the preparation of the *Magna Britannia* in 1806-22.

LYSTRA, a city of Lycaonia in Asia Minor. It is worthy of note in sacred history as the place where Paul first had divine honors offered him and soon after was stoned; and also as being the native place of his companion and fellow-missionary, Timothy. It was in the eastern part of the great plain of Lycaonia. Its site is uncertain, but some have identified it with the ruins of Bin-Bir-Kilisseh, at the base of a volcanic conical mountain named the *Karadagh*.

LYTHRUM (Gr. *λύθρον*, blood, from the crimson or purple color of the flowers), a genus of herbaceous plants, called also **LOOSESTRIFE** in common with *lysimachia* (q.v.), although belonging to another order, *lythraceæ*. Calyx cylindrical, striate, 5 to 7

toothed; petals, 5 to 7; stamens as many as the petals, or twice the number, inserted low down on the calyx; pod oblong, two-celled. The herb is slender, with opposite or scattered, mostly sessile leaves, and purple flowers. The *L. salicaria*, or spiked loosestrife, is a native of Europe, but is found in some of the older states in this country in wet meadows, particularly in New England and e. New York, where it is frequently cultivated; leaves lanceolate, heart-shaped at the base, sometimes whorled in threes; stamens 12, twice the number of petals, 6 longer and 6 shorter. It is a fine, tall, rather downy plant, with large flowers, from crimson to purple; perennial. By growing in dry places the plant becomes more downy and hoary, and considerably dwarfed. The herb has a mucilaginous, astringent taste. The blackish brown, branching, and fibrous root is also astringent, mucilage and tannin being its principal constituents. It has a place in pharmacopœias as a medicine, and is much used in Europe in diarrhea, dysentery, and passive hemorrhages. It is usually given in decoction made by boiling an ounce of the root in a pint of water, the dose being from one to two fluid ounces. The principal species indigenous to the United States are *L. hyssopifolia*, a low annual, from 6 to 10 in. high; leaves oblong-linear, obtuse, longer than the inconspicuous flowers; petals, pale purple, 5 to 6 in number; stamens the same; found in marshes on the coast of New England and New Jersey. *L. alatum*: tall and wand-like; perennial; leaves from oblong-ovate to lanceolate; color deep purple; growing in Michigan, Wisconsin, and southward. *L. lineare*: stem slender and tall, from 3 to 4 ft., bushy at the top; leaves linear, short, chiefly opposite; petals whitish; grows in brackish marshes in New Jersey and southward.

LYTTELTON, EDWARD, D.C.L., Baron, 1589-1645; b. at Mounslow, Shropshire, England; graduated at Oxford in 1609; appointed chief-justice of North Wales in 1621; elected to parliament in 1626; recorder of London in 1631; made solicitor-general and knight in 1634; chief-justice of common pleas in 1640; lord keeper of the great seal in 1641; and a peer in the same year. In 1642 he escaped with the great seal to Charles I. at York; was required by parliament in 1643 to restore it on pain of losing his place; appointed first commissioner of the treasury in 1644. Died at Oxford.

LYTTELTON, THOMAS, Lord, b. Devonshire, England, in the 15th c.; studied at Cambridge and at the inner temple, where he was a lecturer on law; was appointed by Henry VI. steward of the court of the palace, and in 1455 the king's sergeant. He traveled through the northern circuit as judge of assize. The excellence of his character and his fame as a lawyer procured for him the favor both of the Lancastrians and Yorkists during their long struggle, and Edward IV. in 1462 offered him a general pardon, confirming to him also the offices of king's sergeant and judge of assize. In 1466 he appointed him one of the judges of common pleas, and made him a knight of the order of the bath. He was buried in Worcester cathedral, where a marble tomb, surmounted by a statue, was erected to his memory. His great work on *Tenures*, written in Norman French, composed while he was judge of common pleas, was printed after the author's death, and published in English in 1539. Sir Edward Coke wrote a commentary on it, now known by the title of *Coke upon Lyttelton*.

LYTTON, EDWARD ROBERT BULWER-LYTTON, Lord. See BULWER-LYTTON, EDWARD ROBERT, Earl.

M

MAB, in northern mythology, the queen of the fairies; though some authorities have it that queen, in this use, should be *quean*, signifying female, as adapted from the Saxon *cwe'n*. In opposition to this is the Welsh meaning of the word, "a boy," but the frequent use of it by poets in its significance of fairy-queen has caused it to be popularly accepted in that sense. The speciality of Mab, as attributed in English poetry, is to act as the "fairies' midwife," who delivers the brain of dreams. Thus when Romeo says: "I dreamed a dream to-night," Mercutio replies, "O then, I see queen Mab hath been with you." Mab appears in the poems of Ben Jonson, Herrick, and Drayton: Shakespeare's description of her, placed in the mouth of Mercutio, is well known.

She is the fairies' midwife, and she comes
In shape no bigger than an agate-stone
On the fore-finger of an alderman,
Drawn with a team of little atomies
Athwart men's noses as they lie asleep, etc.

—*Romeo and Juliet*, Act I, Sc. IV.

MABILLE, or JARDIN MABILLE, a place in Paris famous for brilliant public balls held nightly, which are frequented by the gay, rollicking youth of all countries, and by travelers drawn thither by curiosity, in numbers almost equal to those of Parisian visitors. Fantastic revelry, marvelous dancing, intoxicating music are the attractions in the midst of a panorama made gorgeous by the blaze of 3,000 gas jets shaded into all colors to light the ball-room, the passages, the alcoves, and the groves of this fairy garden of men, women, and flowers. The garden, established in 1840, is on the s. side of the Champs Elysée. That part of the garden which is under roof, and that which has only

the boughs of trees and the sky above it are so blended that one hardly notices whether he is under one or the other. Formerly youth who went for their own pleasure were the main performers in the grotesque extravagances of the dancing. Of late years, however, professional *dansantes* are employed to astonish visitors, by whom they can be distinguished from other revelers only by the extraordinary fantasies of their performances. One of their characteristic feats is to lift a toe suddenly to the head of a dancer or astonished visitor who presses too near the dancing circle, to dash a hat from his head without touching his face or arresting their own swift course in the dance. The visitors to the Mabilles are from every part of the world. Middle-aged, portly Englishmen, Americans, Turks, Arabs, Russians, and even their ladies are seen in the throng around the dancers, and go prepared to be trifled with. France furnishes the larger part of the men who enter frankly into the hilarity of the dancing scenes and all of the peculiarly supple, fascinating, and soiled women. Though physical exuberance of joy and fuss is allowed the widest license in the dance, vulgarity of language is very rare, and when exhibited results in quick expulsion of the offender. It is thought that the resort is not so largely attended or in so good repute as formerly with English and American travelers of the cultivated classes; and it would seem that a proper taste—not to speak of decency—might operate against its peculiar style of attraction.

MABLY, GABRIEL BONNOT DE, 1709–85, b. France; educated for the priesthood among the Jesuits of Lyons, and novitiated in the seminary of St. Sulpice, Paris. He resigned the priestly calling, and attracting the attention of cardinal De Tensin by the solidity of his conversation on state affairs, was attached to the bureau of the minister of foreign affairs, and became a power among the ministers. After acquiring high position he broke with his patron the cardinal, because the former resolved to pronounce Protestant marriages null. Living in retirement he became author of works calling attention to the noble thoughts of Greek and Roman authors, and to their wisdom in government. He looked backward and not forward for his ideals, and failed to perceive progressive development in modern civilization. In 1784, in a publication entitled *Observations sur le gouvernement et les lois des Etats Unis d'Amerique*, he predicted the early downfall of the United States, if they continued in the mercantile road. In his old age he saw nothing that gave him encouragement that the world was not going to the bad, and obtained the surname of "Prophet of Evil." His early writings, after his retirement, are remarkable for the clearness with which they depict the danger of character which comes to nations with increase of wealth and luxuries, and show that commerce and the arts serve but to corrupt peoples without adding to their real happiness. Sparta with the Jesuit college grafted on it, was his ideal community. Mably's writings were the source of many of the most radical and one-sided hobbies of French socialists and agrarians; and while he intended them to fortify respect for the more ancient forms of social life, they became the seed of the wildest democratic vagaries. He demanded the abolition of individual property, of the laws of inheritance, the suppression of commerce, of education, of amusements. Agriculture and the gymnasium as in Sparta, a state religion tolerating no other—these were the ends of his philosophy. "It is better" he writes, "that there should be but a million happy men upon all the earth, than the innumerable multitude of *miserables* and slaves who live a half-life in the midst of misfortunes." Such crude and half-sided philosophy formed the school in which Marat, St. Just, and Babeuf found apology for their fanaticism.

MABUSE, JAN DE (GOSSAERT), 1499–1562; a Flemish painter who executed pictures of the three children of Henry VII. of England, also "Adam and Eve," "Christ and the Rich Young Man," which are in the Kensington gallery. After visiting Italy in 1532–33, he returned to Germany where his works are numerous and valued to this day. "Neptune and Amphitryon," in the museum of Berlin is one of his best. The Louvre has a great number of his pictures of religious subjects.

MCALLISTER, FORT, a strong earthwork, erected by the confederates during the war of the rebellion on Genesis point, on the right bank of the Great Ogeechee river, 6 m. from Ossabaw sound, and 12 m. s. of Savannah, Ga. It successfully resisted the fleet of monitors under commodore Worden in 1863, but was taken by assault by the 2d division of the 15th corps under gen. Hazen, Dec. 13, 1864, with a loss of 90 men. This was the closing feat of Sherman's "march to the sea," and led to the surrender of Savannah a few days later.

MCALPINE, WILLIAM J.; b. New York, 1812; after completing his classical education, he began engineering in 1827, under John B. Jervis, with whom he remained 12 years, during which time he was employed upon the Delaware and Hudson canal and railroad, and upon other public works, under the direction of his chief. He was the successor of Mr. Jervis as engineer of the eastern division of the Erie canal enlargement until 1846, when he was chosen to construct the dry-dock at the Brooklyn navy-yard. In 1852 he was elected state engineer of New York. In 1854–56 he was railroad commissioner of the state, in which capacity he made a valuable report upon the principles and practice of railroad construction and management. Afterwards, for two years, he was engineer and acting president of the Erie railroad; later still, engineer of the Galena and Chicago, and of the Ohio and Mississippi railroads. He constructed the water-works of Chicago and Albany, and planned those for Brooklyn and New Bedford.

In 1870 he presented plans, which were accepted by the Austrian government, for the improvement of the cataracts of the Danube.

MACAPÁ, a t. in Brazil, on the Amazon, 130 m. from its mouth; pop. 7,500. It is a fortified town, the harbor and river being defended by a fort overlooking them. The town is well built and regularly laid out; public buildings are a town-hall, church, school-house, prison, and hospital. There is a good export trade in cacao, tropical fruits, millet, rice, cotton, and fine woods.

MACAQUE, quadrumana belonging to the family simiæ, and to that section denominated by Bowen catarrhine, or the old-world monkeys. They constitute the genus *macacus* of which there are several species. There has been some confusion in the classification of these animals. The name first appears in Marcgrave's *Natural History of Brazil*, as the name of a monkey of Congo and the coasts of Guinea. The application of the title to an Asiatic species of an entirely different genus was an error of Buffon's—perhaps unavoidable when made by him. Lacépède latinized the word macaque (or macaco), the native title, and applied it to the genus. There are also different statements made as regards the habitat of the apes to which the term is now applied, for it is often stated that the macaques are natives of Africa as well as of Asia and Gibraltar; whereas Mivart, in his little book *Man and Apes*, distinctly states that "the macaci, or macaques, are not found in Africa, but they extend farther north than any other of the monkeys." Two species, he says, are found in Japan and at Gibraltar, called respectively *M. speciosus*, and *M. inuus*. An Indian macaque, called the rhesus, inhabits many parts of Hindustan in great numbers. (See **RHESUS MONKEY**, *ante*.) The wanderoo, or *M. silenus* of the Indian archipelago, is another macaque (see **WANDEROO**, *ante*). The *M. inuus*, the Gibraltar monkey, is regarded by some as a distinct genus from the Japan ape, and is called *inuus sylvanus*, or the Barbary ape (q.v.). The following species of *macacus* are given in the British museum catalogue: *M. radiatus*, the zati, or capped macaque, sometimes called the toque; *M. sinicus*, the munga, or bonnet macaque; *M. nemestrinus*, the bruh; *M. cynomolgus*, the macaque; *M. rhesus*, the rhesus; *M. oinops*, the oinops; *M. speciosus*, the Japan ape; *M. juncus*, the magot, and *M. niger*. The macaques have cheek pouches and large ischial callosities; the length of tail also varies in different species, being rudimentary in some and long in others. Many of the monkeys seen in menageries are macaques. When young they are docile and active, but as they grow old they become morose and exhibit some of the ferocity of their cousins the baboons. See **QUADRUMANA**.

MCARTHUR, DUNCAN, 1772–1839, b. N. Y.; his family removed to Pennsylvania in 1780, and in 1790 he served as a volunteer in Harmar's campaign against the Indians, and in later campaigns on the frontier. In 1805 he was elected a member of the legislature of Ohio, where he had settled and become a great landed proprietor. He entered the war of 1812 as colonel of an Ohio volunteer regiment, was promoted to a brig.-generalship in 1813, and the next year succeeded gen. Harrison as commander of the army of the west. He was a member of the Ohio legislature 1815–21, and a member of congress 1823–29. From 1830 to 1832 he was governor of Ohio.

MCARTHUR, JOHN, 1766–1834, b. England; a captain in the British army. While in the service in Australia in 1790, he secured a tract of land in the neighborhood of Sydney, and turned his attention to the development of the wool industry, making importations of sheep from Africa and Europe. His efforts attracted the attention of the home government, which made him a grant of 10,000 acres of land; and he was the first to cultivate the ordinary vegetable crops on any large scale in Australia.

MACARTNEY, GEORGE, Earl, 1737–1806; b. Lissanoure, near Belfast, Ireland; graduated at Trinity college, Dublin, 1757; studied law in London; then made the tour of Europe, and on his return in 1764 was appointed envoy extraordinary to the empress of Russia, to conclude a commercial treaty with that country, which after some difficulty he accomplished. Returning in 1767 and sitting for a time in the British parliament, he became in 1769 chief secretary for Ireland. Retiring from this office in 1772 he was created knight of the bath. Appointed governor of the island of Grenada in 1775, he was taken prisoner on the capture of that island by the French in 1779, but was soon released by Louis XVI., and allowed to return to England. In 1776 he was raised to the Irish peerage by the title of baron Macartney. In 1780 he was appointed governor of Madras, but resigned in 1786 on account of ill-health, and for the same reason declined the appointment of governor-general of India. Soon after his return home he was wounded in a duel with maj.gen. Stuart, an officer whom he had found it necessary to remove from the service when in India. In 1788 he took his seat for the first time in the Irish house of peers, and in 1792 was made an Irish viscount, and sent ambassador extraordinary to Peking, the first British envoy sent to China. In 1794 he was made earl Macartney in the Irish peerage, and returned from China the same year. In 1795 he was sent on a confidential mission to Italy. In 1796 he was made a British peer by the title of baron Macartney, and appointed governor of the newly captured territory at the cape of Good Hope. In 1798 he resigned on account of declining health, and for the same cause declined the offer of a seat in the cabinet of the Addington ministry in 1801. An account of his public life, with a selection from his unpublished writings, was pub-

lished by his private secretary, sir John Barrow, in 2 vols. Sir George Staunton, his secretary to China, wrote an account of his Chinese embassy in 2 volumes.

MACASSAR, STRAIT OF, a body of water which separates the islands of Borneo and Celebes, and unites the Java sea with the sea of Celebes. It varies in width between 75 and 140 m., and is about 400 m. long. Its navigation is difficult, owing to shoals and rocks, and particularly in the months of January and February, when a strong current sets through it from north to south.

MACAUCO. See **LEMUR**, *ante*.

MACAULAY, CATHARINE (SAWBRIDGE), 1733-91; b. England; married in 1760 Dr. George Macanlay, a London physician; and after his death a clergyman named Graham. She published *The History of England, from the Accession of James I. to that of the Brunswick Line*, 8 vols., 1763-83; *Remarks on Hobbe's Rudiments of Government and Society*, 1767; *A Modest Plea for the Property of Copyright*, 1774; and other works. She was a pronounced republican and a friend of Washington, whom she visited in America in 1785.

MACAULEY, CATHARINE E., 1787-1841; b. Ireland. A wealthy man named Callahan, who had adopted her, left her at his death a considerable fortune, with which she founded in 1827, at Dublin, a home for poor women out of work; this was finally called the "institute of our blessed lady of mercy," and was devoted to the care of the sick. Miss MacAuley became superior of the order of the sisters of mercy to which the Dublin institution gave rise, and that order has since spread through Europe and America.

MCCABE, JAMES D., JR., b. Richmond, Va., about 1840; received his education at the Virginia military institute; began very early to write for the press, and during the rebellion employed his pen in the service of the confederacy. He has published *a Life of Lieut.-Gen. T. J. Jackson*, *a Memoir of Gen. A. S. Johnston*, and *The Life and Campaigns of Gen. R. E. Lee*. He has also written many poems and short stories.

MCCALL, GEORGE ARCHIBALD, 1802-68; b. Penn.; graduated at West Point in 1822; entered the army and was made first lieut. in 1829, capt. in 1836, and maj. in 1847. He served with distinction in the Florida and Mexican wars, was made inspector-gen. in 1850, and resigned in 1853. In 1861 he commanded a volunteer force called the Pennsylvania "reserve corps," receiving a maj.gen.'s commission from that state. His corps was attached to the army of the Potomac, and he led it through part of the peninsula campaign of 1862, till the battle of Frazier's Farm, where he was taken prisoner. He was exchanged in August, but his health prevented his returning to the army, from which he resigned in Mar., 1863.

MCCARTEE, ROBERT, D.D., 1791-1865; b. N. Y.; graduated at Columbia college, 1808; having studied law and practiced it for several years, he entered the theological seminary of the Associate Reformed church and in 1816 was licensed to preach; in 1817 installed pastor of the Old Scots' church, Philadelphia, which was greatly strengthened under his ministry; in 1822 became pastor of the Irish Presbyterian church, New York, which, under his charge, increased from 30 members to more than 1000, becoming one of the prominent churches in the denomination; in 1836, because of impaired health, he took a less laborious charge at Port Carbon, Penn., where he formed a lyceum of natural history and was a zealous promoter of education among the miners; in 1840 removed to Goshen, N. Y.; in 1849 to Newburg; 1856-62, pastor of the Twenty-fifth Street Associate church, New York city; after which, in declining health, he spent the remainder of his useful life at Yonkers, N. Y.

MCCARTHY, JUSTIN, b. Cork, Ireland, 1830; entered upon the career of a journalist at the age of 16 years by joining the staff of the Cork *Examiner*, which paper he left in 1853 to connect himself with the Liverpool *Northern Times*. He entered the reporters' gallery of the house of commons in 1860 as a reporter for the *Morning Star*, of which journal he became foreign editor the next year, and editor-in-chief in 1864, in which position he remained four years. In 1868 he made a tour in the United States, where he remained three years, occupying the most of his time in travel, and visiting 35 states. Mr. McCarthy published his first novel, *Paul Messie*, anonymously in 1866; this was followed by *The Waterdale Neighbors*, 1867; *My Enemy's Daughter*, 1869; *Lady Judith*, 1871; *A Fair Saxon*, 1873; *Linley Rochford*, 1874; *Dear Lady Disdain*, 1875; *Miss Misanthrope*, 1877; *Donna Quixotte*, 1879; and *The Comet of a Season*, 1881. He also wrote numerous papers for the *Galaxy* (New York), some of which were compiled and published in a volume under the title *Modern Leaders*; and *A History of Our Own Times*, being a chronicle of the events of the reign of queen Victoria, 1877-80. In 1879 he was elected to parliament from Longford, Ireland, as a "home ruler."

MCCAUL, JOHN, D.D., LL.D., b. Dublin, 1810; educated at Trinity college, Dublin, obtaining the highest honors, and appointed classical tutor and examiner; appointed in 1838 principal of the Upper Canada college; in 1842 became vice-president of King's college, and professor of the classics, logic, and rhetoric; president of the university of Toronto; in 1853 president of University college, and vice-chancellor of the university of Toronto. He has published essays on classical subjects, lectures on Homer and Virgil, and edited some of the classics, also a Canadian monthly, the *Maple Leaf*.

His *Britanno-Roman Inscriptions and Christian Epitaphs of the First Six Centuries* are valuable works. He composed, also, some anthems and other pieces of music.

MCCAW, JAMES BROWN, 1772-1846; b. Va.; studied medicine at the university of Edinburgh, and returning to Virginia became the principal surgeon in the state.

MCCAW, JAMES BROWN, b. Richmond, Va., 1823; graduated at the university of New York in 1844; edited the *Virginia Medical and Surgical Journal* 12 years; was first lecturer, then professor in the Virginia medical college. During the rebellion he organized the Chimborazo hospital at Richmond, in which over 70,000 patients were treated.

MCCHEYNE, ROBERT MURRAY, 1813-43; b. Edinburgh; entering the high school at the age of eight, he held high rank in his classes; educated at the university of Edinburgh in 1827-31, gaining prizes in various departments of studies; in 1831 commenced the study of theology with Dr. Chalmers and Dr. Welsh; was licensed to preach in 1835, and began his ministry at Larbert, a parish of 6,000 people. He was then an intense student of the Bible, reading it in Hebrew and Greek. In 1836 he was ordained and installed pastor of St. Peter's church, Dundee. After several years, his health failing, he resigned, and went to Palestine, with three others, on a "mission of inquiry to the Jews." Returning with improved health, he resumed his pastorate of St. Peter's till 1842, when, his health again failing, he made a tour through the n. of England, preaching in the open air and in churches of different denominations. Returning to Dundee, he had an assistant, and in 1843 made another tour as an evangelist. He was pre-eminent as a pastor, preacher, and Christian. His earnest and faithful labors were instrumental in the conversion of great numbers in the memorable revival of 1839. He possessed fine literary taste, and left several hymns of great beauty. In 1837 a collection of his works was published in two volumes, and several volumes of his remains, letters, and fragments have been issued. The *Narrative of a Mission of Inquiry to the Jews from the Church of Scotland*, in connection with the rev. A. A. Bonar, in two volumes, was published in 1839. His life also has been written by Mr. Bonar.

MCCLELLAN, GEORGE, 1796-1847; b. Conn.; educated at Yale, and graduated in medicine from the University of Pennsylvania in 1819. He was one of the founders of, and a professor in, the Jefferson medical college, Philadelphia, 1826-39; and in the Gettysburg medical college from 1839-43. He published *The Principles and Practice of Surgery*, and his rank as a surgeon was high.

MCCLELLAN, GEORGE BRINTON (*ante*); son of George, who was a distinguished physician, graduate of Yale college, and founder of Jefferson college. His remoter ancestors were Scotch. At West Point he gained a reputation for close application and intelligent study, rather than for brilliancy or showy talents. It was a surprise when this quiet, thoughtful, but not remarkable student graduated second in general rank in the largest class that had ever left the academy, and first in the class of engineering. In the spring of 1855 he was appointed to a captaincy in the first cavalry regiment, under col. Sumner. As one of the commission sent to the Crimea, he combined in making the official report, which was published by the U. S. government, and which recommended improvements in the organization and discipline of the American army. Soon after entering the service of the Illinois Central railroad, he became vice-president of the road. In May, 1860, he married the daughter of gen. R. B. Marcy. In August of that year he resigned his position in the Illinois Central, to assume the presidency of the Ohio and Mississippi railroad, which post he held, residing in Cincinnati, until the outbreak of the rebellion. His commission of maj.gen. of volunteers bore date April 23, 1861, and he was at once appointed to organize the regiments forming in the state of Ohio. Called to the command of the armies of the United States after the disastrous affair of the first Bull Run, gen. McClellan soon discovered the potent influence which politics were destined to exercise over the progress of the conflict. Chafing under the first serious repulse of the war, the people clamored for immediate action, while to many politicians this was not desirable. Cross-purposes resulted in placing the young commander at a disadvantage; and from the period of his being placed in supreme command, to that when he was ordered to resign in favor of gen. Pope, he may be said never to have been relieved from the trammels of politics. The great success which he gained at Antietam revived the drooping hopes of the country, and it is on record that his final superseding by gen. Burnside was against the judgment of that officer, who was presently defeated at Fredericksburg, to be succeeded in turn by gen. Hooker, who immediately went into winter cantonments. From Antietam to Gettysburg, the history of the army of the Potomac was a history of defeat and disaster. In the presidential campaign of 1864, gen. McClellan received a popular vote of 1,800,000, Mr. Lincoln receiving 2,200,000. After his return from Europe in 1868, he made his home at Orange mountain, New Jersey, and Nov. 6, 1877, was elected governor of that state, filling the chair until 1881. On his retirement from that position he assumed the office of president of a new underground railroad company organized in the city of New York. Gen. McClellan is the author of a volume of the series of government reports of the survey for the Pacific railroad; *The Armies of Europe*, 1861; *Report on the Organization and Campaigns of the Army of the Potomac*; and a number of important articles contributed to the *North American Review*, and other periodicals, including the valuable series

of papers published in 1877 on the Russo-Turkish war. As a scientific and practical engineer he stands in the first rank; while even his opponents concede his abilities as a military critic and organizer, his conscientiousness and unassuming worth.

MCCLEARNAND, JOHN A., b. Ky., 1812; passed his early youth at Shawneetown, Ill., on the Ohio river, 182 m. s.e. of Springfield, where his mother had removed on the death of his father in 1816. Here his time was divided between the labor of the farm and the study of the law until 1832, when he was admitted to the bar. In 1833, having served as a private in the war against Black Hawk, chief of the Sac and Fox tribes, which ended Aug. 2 of that year in the defeat of the Indians near the Wisconsin river, he resumed the practice of his profession, and engaged in mercantile pursuits. In 1835 he became the editor and publisher of *The Democrat*. In 1836 he represented his district in the state legislature, and again in 1840 and 1842. From 1843 to 1851 he was member of congress from Illinois. In 1851 he removed to Jacksonville, and in 1859 was elected congressman from the Springfield district. At the breaking out of the rebellion, having been appointed brig.gen. May 17, 1861, he raised by his personal influence, with that of cols. Logan and Fonke, the McClernand brigade, which he commanded at the battle of Belmont, on the Mississippi river, opposite Columbus, Ky., Nov. 7 of the same year, where, being greatly outnumbered, his force suffered defeat. In Feb., 1862, he gallantly led his command, on the right of the union lines, at the bombardment of fort Donelson, and was promoted in the following March to the command of a division, which he led April 6 and 7 at the battle of Shiloh, or Pittsburg Landing, against gens. A. S. Johnston and Beauregard, resulting in the death of gen. Johnston and the retreat of the confederates. On Jan. 4, 1863, he superseded gen. W. T. Sherman in the command of the forces threatening Vicksburg (the latter gen. retaining the command of his own corps, the 15th), until relieved by gen. Grant, who was placed at the head of all the forces operating against Vicksburg. On Jan. 11, his division being combined with the naval forces under admiral Porter, he commanded the expedition that finally carried by storm the garrisoned village of Arkansas Post, taking a number of prisoners and immense quantities of commissary stores. He also distinguished himself on the Big Black river, May 12, 1863, and on the morning after the battle of Champion hills, May 16, 1863, sometimes called Baker's creek. This desperate struggle lasted five hours, in which the confederates were forced back to the Big Black river, losing heavily in men and artillery, his own corps, with that of gen. McPherson's, suffering terribly in killed and wounded. The confederates, having intrenched themselves on both banks of the river, were successfully assaulted, 17 pieces of their artillery were captured, and the remnant of gen. Pemberton's army was compelled to retreat to their stronghold of Vicksburg. On Nov. 30, 1864, he resigned his commission as maj.gen. of the 13th army corps, and retired to private life.

MCCLEINTOCK, SIR FRANCIS LEOPOLD, D.C.L., LL.D., b. Ireland, 1819; entered the navy in 1831, and in 1838, having passed his examinations, he went to South America in the steamship *Gorgon*. For his services in bringing off the *Gorgon*, which ran ashore near Montevideo, he was made a lieut. in 1845. He was attached to the Pacific squadron, 1845-47, and in 1848 was a member of the Arctic expedition under sir James C. Ross for the relief of sir John Franklin. In 1850 he was first lieut. of the *Resistance* in the Arctic expedition under capt. Austin; and in April, 1851, began a sledge journey along the northern shore of Parry sound, traveling 760 m. in 80 days. On his return to England he was made a commander, and in 1852 commanded the *Intrepid*, in the Arctic expedition under sir Edward Belcher. He succeeded in rescuing McClure near Melville island, but was afterwards obliged to abandon his vessel; and only one of the five ships which had composed Belcher's expedition succeeded in reaching England. In 1857 McClintock, who in the meantime had been promoted to a captaincy, started in search of sir John Franklin, in command of the *Fox*, a screw-steamer of 177 tons, fitted out by lady Franklin. On the north-western coast of King William Land he found records of the death of sir John Franklin, and of the abandonment of the *Erebus* and *Terror*. On his return in 1859 he was knighted, and received the degree of doctor of laws from the universities of Oxford, Cambridge, and Dublin. In 1865 he was made commodore of the Jamaica station, and in 1872 vice-admiral. He published, in 1869, *Voyage of the Fox in the Arctic Seas*.

MCCLEINTOCK, JOHN, D.D., LL.D., 1814-70; b. Philadelphia; graduated at the university of Pennsylvania in 1835; ordained a minister of the Methodist Episcopal church, and appointed professor of mathematics in Dickinson college in 1837; in 1840 transferred to the professorship of Greek and Latin; translated, with Dr. Blumenthal, in 1847, Neander's *Life of Christ*; and, with prof. Crooks prepared a series of Greek and Latin text-books; in 1848 was elected by the general conference editor of the *Methodist Quarterly Review*, retaining the position for eight years. In 1856 he was appointed, with bishop Simpson, a delegate to the Wesleyan Methodist conference of England, and to the evangelical alliance held at Berlin. In 1857 he became pastor of St. Paul's Methodist church in New York, and in 1860 was preacher in the American chapel in Paris. When in Europe, during the war of the rebellion, he advocated with ability the union cause, in conversation, by the pen, and on the platform; and his home in Paris was a rallying center for patriotic Americans. During his absence he was corresponding editor

of the *Methodist*. Returning to America in 1864, he was again, for a short time, placed in charge of St. Paul's church in New York. His health failing, he resigned in 1865, and resided in Germantown, Penn. In 1866 he removed to New Brunswick, supplying for a time St. James's church, and was made chairman of the central centenary committee of the Methodist Episcopal church. Through his influence, Daniel Drew, a member of St. Paul's church in New York, contributed a large sum to the centenary fund, which was appropriated for the founding of an institution at Madison, N. J., called the Drew theological seminary. Dr. McClintock was its president till his death. Dr. McClintock attained a high rank as a scholar, teacher, writer, and preacher, and for many years was a leader in the Methodist church. Besides the works mentioned, and numerous articles in periodicals, he published *Analysis of Watson's Theological Institutes*; *Sketches of Eminent Methodist Ministers*; *The Temporal Power of the Pope*; a translation of Bungenier's *History of the Council of Trent*. In the last 20 years of his life he labored in preparing the *Cyclopaedia of Biblical, Theological, and Ecclesiastical Literature*, in connection with the rev. Dr. James Strong. At the time of Dr. McClintock's death three volumes had been published, the work being continued by Dr. Strong. Six volumes have since been issued. A volume of Dr. McClintock's sermons, entitled *Living Words*, and *Lectures on Theological Encyclopaedia and Methodology*, have been published since his death.

MCCLOSKEY, JOHN, D.D., Cardinal, b. Brooklyn, 1810; educated at St. Mary's college, Maryland, and ordained to the priesthood in 1834. After spending two years in Rome, he returned to New York, and became pastor of St. Joseph's church. In 1844 he was appointed coadjutor of bishop Hughes, and in 1847 was consecrated bishop of the new diocese of Albany, where he remained till 1864, when he succeeded Dr. Hughes as archbishop of New York. In 1875 Pius IX. made him a cardinal with the title of Santa Maria sopra Mineroa, and he received his cardinal's hat in Rome from Leo XIII. in 1878. He has shown himself a highly vigorous and successful administrator in all his responsible positions, and is both personally esteemed and popular as a cardinal-prince in his own communion and outside its bounds.

MCCLUNG, JOHN ALEXANDER, D.D., 1804-59; b. Washington, Ky.; studied at Princeton theological seminary; was licensed to preach in the Presbyterian church in 1828; abandoned the ministry on account of doubts as to the authenticity of some books of the Bible, and commenced the study of law; admitted to the bar in 1835, and practiced with success till 1849, when he again entered the ministry; was ordained in 1851, and was pastor of the First Presbyterian church, Indianapolis, 1851-57; declined the presidency of Hanover college; was pastor at Maysville, Ky., in 1857. He was a man of brilliant intellect and solid learning.

MCCLURE, ALEXANDER WILSON, D.D., 1808-65; b. Boston; educated at Yale and Amherst colleges and Andover theological seminary; settled pastor of the Congregational church at Malden, Mass., 1830-41; resided at St. Augustine, Fla., 1841-44; editor of the *Christian Observatory*, 1844-47; pastor again at Malden, 1848-52; pastor of the First Reformed church, Jersey City, 1852-55, and then became cor.sec. of the Am. and For. Christian union. His health having failed, he was sent in 1856 as chaplain of the Christian union to Rome, Italy. In 1858 he retired from public life, and was a great sufferer from disease until his death. The American chapel in Paris was erected with funds obtained by Dr. McClure. His contributions were numerous for the *Christian Observatory*, the *New Brunswick Review*, and *Literary and Theological Review*. He published also *Lives of the Chief Fathers of New England*; the *Bi-Centennial Book of Malden*; *The Translators' Revival*, besides several controversial religious treatises. He was a man of wit and learning and a skillful polemic, defending the old in theology and in ecclesiastical procedure.

MCCLURE, SIR ROBERT JOHN LE MESURIER. See MACLURE, *ante*.

MCCLURG, JAMES, 1747-1825; b. Va.; educated at William and Mary college and at the university of Edinburgh, where he took his medical degree in 1770. In London, where he continued his studies, he published an *Essay on the Human Bile*, which attracted much attention. On his return to Virginia he practiced his profession first at Williamsburg, and afterwards at Richmond, and stood at the head of the profession in the state. He was a member of the convention that framed the U. S. constitution.

MCCOOK, a co. in s.e. Dakota, formed since the census of 1870; watered by the Vermillion river; 432 sq.m. The soil is fertile and the surface mostly prairie land.

MCCOOK, ALEXANDER McDOWELL, b. Columbiana co., Ohio, 1831; graduated at West Point, and entered the army in 1852 as brevet second lieut. of infantry. He was employed for a time in garrison duty, afterwards in Indian warfare, and in 1858 was appointed instructor in infantry tactics at West Point. On the outbreak of the rebellion he was appointed col. of the 1st Ohio volunteers, which he led in the first battle of Bull Run. In 1861 he was made brig.gen. of volunteers and assigned to a command in the army of the Cumberland. He commanded a division in the battle of Shiloh and the siege of Corinth; led the 1st army corps in the battle of Perryville, the 20th army corps at Stone river and Chickamauga, and the troops for the defense of Washington against Early in 1864. He was brevetted maj.gen. of the regular army, but having resigned his

commission in 1865, was promoted in 1867 to be lieut.col. of infantry. His father and seven of his brothers served in the war, and the father and three of his sons were killed. Four of the eight brothers attained the rank of general.

MCCOOK, EDWARD M., b. Steubenville, Ohio, 1834; received only a common-school education; accompanied governor Medary to Minnesota as his private secretary in 1856; in 1859 went to Pike's Peak, and in 1860 was a member of the Kansas legislature; enlisted in the war for the union, and led various successful cavalry raids in the Atlanta and other campaigns, attaining the rank of brig.gen. in 1864, and brevet maj.gen. in 1865. He was minister to the Sandwich islands from 1866 to 1869, and afterwards for six or seven years governor of Colorado.

MACCORD, LOUISA S. (CHEVES), daughter of Langdon Cheves, b. Columbia, S.C., 1810; was married in 1840 to David J. Maccord; in 1848 translated Bastiat's *Sophisms of the Protective Policy*; in the same year published a volume of poems, *My Dreams*; and in 1851 *Caius Gracchus*, a tragedy. She wrote extensively for *De Bow's Review* and the *Southern Literary Messenger*, and during the rebellion rendered valuable service in the confederate hospitals.

MCCORMICK, CYRUS HALL, b. Va., 1809; removed to Cincinnati in 1845, and to Chicago in 1847. In 1816 his father invented a machine intended to supersede the sickle and scythe in the harvest field; and the son, having had his thoughts thus early directed to the object, in 1831 produced and afterwards patented the reaping machine which, subsequently greatly improved by him, has become celebrated in different lands, and has won for its inventor many gold medals and other distinctions, as well as great wealth. In 1859 with a portion of his wealth he contributed largely to the establishment at Chicago of the Presbyterian theological seminary of the north-west; and has since endowed a professor's chair in Washington and Lee college, Lexington, Va., besides presenting to the institution a telescope, ordered from Alvan Clark on the stipulated condition that the object glass should be equal in size and finish to that of the similar instrument furnished by the same maker for the naval observatory at Washington, D. C. Mr. McCormick is a zealous upholder of the strict form of Calvinistic doctrine.

MCCORMICK, RICHARD, C., Jr., b. N. Y., 1832; having received a classical and practical education, in 1850 he turned his attention to commercial pursuits in Wall street, New York. On his return from a tour through Europe and Asia Minor, he published a *Visit to the Camp before Sebastopol* (1855); *St. Paul to St. Sophia*, etc. From 1857 to '61 he was trustee of the New York public schools, became a journalist in 1859, and editor of the *Young Men's Magazine*. During the war of the rebellion he represented several New York journals as special correspondent. In 1862 he was appointed chief clerk of the department of agriculture, in 1863 secretary of Arizona, in 1866 governor of that territory, and was elected delegate to congress from Arizona for 6 years, 1869-75. At present, although residing in New York city, he is active in forwarding the mining interests of Arizona, and is president of the Freeland mine in Colorado. On Dec. 17, 1877, he was appointed U. S. commissioner-general to the Paris exposition, where his judicious conduct of affairs did full justice to the U. S. exhibits, and reflected credit on his administrative qualities. On Mar. 3, 1877, he had been made assistant secretary of the U. S. treasury, became one of the national republican committee on July 2 of the same year, and retired from the treasury department Sept. 15, 1877, on account of failing health.

MCCOSH, JAMES, D.D., LL.D., b. in Ayrshire, Scotland, 1811; educated at the universities of Glasgow and Edinburgh; while at the latter he wrote an essay on the philosophy of the Stoics for which, on motion of sir William Hamilton, the honorary degree of A.M. was conferred on him; in 1835 was ordained a minister of the church of Scotland at Arbroath; in 1839 became pastor at Brechin, where he was active in the movement which, in 1843, resulted in the organization of the Free church; where also he published in 1850 his book on the *Methods of the Divine Government, Physical and Moral*, which laid the foundation of his fame as a philosophical writer. In 1851 was chosen professor of logic and metaphysics in Queen's college, Belfast, where he was distinguished as a lecturer; wrote in 1856, jointly with prof. George Dickie, M.D., *Typical Forms and Special Ends in Creation*; published, in 1866, *Intuitions of the Mind Inductively Investigated, being a Defense of Fundamental Truth*; in 1862, *The Supernatural in Relation to the Natural*; and in 1866, *An Examination of Mill's Philosophy*. In 1868, having been elected president of the college of New Jersey, he became a resident of Princeton, where he has, by his successful administration and wide reputation, contributed greatly to the remarkable prosperity which the institution now enjoys (see NEW JERSEY, COLLEGE OF). He has published *The Laws of Discursive Thought and a Treatise on Logic* (1869); *Christianity and Positivism*, a series of lectures delivered on the Ely foundation at the Union theological seminary in New York (1871); *The Scottish Philosophy, Biographical, Expository, and Critical, from Hutcheson to Hamilton* (1874); *A Reply to Professor Tyndall's Belfast Address* (1875); besides frequent contributions to the *Princeton Review* and other periodicals in this country and Great Britain. With a keen discriminative intellect he combines a broad mental scope; he has abundant philosophical learning, and holds stoutly to the ancient doctrinal system of his church in a spirit not averse to liberty and

modern light. This liberality makes him an efficient critic of speculations that are put forth as facts.

MCCOSKRY, SAMUEL ALLEN, D.D., D.C.L., b. Carlisle, Penn., 1804; was a cadet at West Point for one year; graduated at Dickinson college, and became a successful lawyer, but left that profession to become a minister of the Episcopal church. He was a rector first in Reading, Penn., then in Philadelphia, and consecrated bishop of Michigan in 1836. In 1878 he was deposed upon charges affecting his moral character.

MCCRACKEN, a co. in w. Kentucky, bounded by the Tennessee and Ohio rivers, and traversed by the Clark river and the Paducah and Memphis railroad; 232 sq.m.; pop. '80, 16,260. It has a level surface and fertile soil, the productions being Irish and sweet potatoes, butter, tobacco, Indian corn, and wheat. There are manufactures of agricultural implements, carriages and wagons, tobacco, etc.

MCCREA, JANE, 1754-77, b. N. J.; after the death of her father, a Scotch Presbyterian clergyman, she lived near fort Edward with her brother, who, on the arrival of Burgoyne in 1777, wishing to take her to some more protected place, sent for her to the house of a Mrs. McNeil at Fort Edward. His sister was engaged to David Jones, a tory and an officer in a loyalist regiment. In the hope of meeting him, whom she believed to be with Burgoyne's army, she put off her departure for some time, till, on the day it was to take place, the McNeil house was surrounded by Indians, and its inmates taken to Burgoyne's camp. Mrs. McNeil arrived there in safety, but a fresh party of Indians soon brought in the scalp of Miss McCrea. The manner of her death, which was the subject of a sharp correspondence between Burgoyne and Gates, is not known. The Indians pretended that she was killed by a stray shot from the Americans; and according to another story she was tomahawked in a dispute among the Indians as to whom she belonged. A later legend affirmed that the Indians had been employed by Jones to bring her to the British camp, and that they had murdered her in a quarrel as to the reward promised.

MCCULLOCH, a co. in w. Texas, having the Colorado river as its n. boundary; 915 sq.m.; pop. '80, 1533. Stock-raising is followed by the inhabitants more than agriculture, though the bottom-lands along the Colorado are fertile.

MCCULLOCH, BEN, 1814-62, b. Tenn.; took part in the struggle for Texan independence, and distinguished himself in the Mexican war. In 1853 he was made a U. S. marshal, and in 1857 commissioner of Utah. He was a brig.gen. in the confederate service during the civil war, and commanded in several engagements in Missouri. He was killed at the battle of Pea Ridge.

MCCULLOCH, HUGH, b. Me., 1811; studied at Bowdoin college, but on account of ill health did not graduate; in 1833 he removed to Fort Wayne, Ind., and entered upon the practice of law. In 1855 he was made president of the Indiana state bank, where he had been employed since 1835, which position he held for eight years, gaining a more than local reputation as a skilled financier. In 1863 secretary Chase, of the treasury, called him to Washington to take charge of the newly created bureau of the currency, and appointed him comptroller of that department. In Mar., 1865, McCulloch succeeded Fessenden as secretary of the treasury at the request of president Lincoln, and held that position until Mar., 1869. The derangement of the finances occasioned by the rebellion and by the very large issue of legal-tender notes and national bonds gave rise to many difficult questions to be decided by the head of the treasury department. Mr. McCulloch was an earnest advocate of specie resumption at the earliest possible moment, and a firm friend of the national-bank system as uniform and safe. For the greater part of his term of office he was in opposition to congress on the subject of retiring the legal-tender notes, arguing that the "best way to resume is to resume." The fear of contraction was very great, and it was thought that business interests would suffer from haste in the matter. Though McCulloch has since acknowledged that in some details of his scheme he was mistaken, the general principles he advocated have been proved correct by subsequent events. In 1869 he retired from the treasury, became a member of the firm of Jay Cooke, McCulloch & Co., London, and has since been engaged in banking in that city.

MCCURDY, CHARLES JOHNSON, LL.D., b. Conn., 1797; educated at Yale, and called to the bar, where he took a high position. He was several times chosen to the legislature, of which he was speaker for three years. In the years 1845 and 1846 he was lieutenant-governor of the state. He was appointed by Mr. Fillmore minister to Austria in 1851; and from 1856 to 1867 he was an associate justice, first of the superior, and afterwards of the supreme court of Connecticut.

MCDONALD, a co. in s.w. Missouri, having Arkansas on the s., and Indian territory on the w.; 475 sq.m.; pop. '80, 7,816. It is a fertile region, the surface undulating; productions, wheat, Indian corn, oats, Irish and sweet potatoes, cotton, tobacco, and butter. Co. seat, Pineville.

MCDONALD, CHARLES J., 1793-1860; b. S. C.; settled in Georgia, where he was admitted to the bar. He was a judge of the state circuit court in 1825, a member of the state senate in 1837, and governor 1839-43. From 1857 till his death he was an associate justice of the state supreme court.

MACDONALD, FLORA, a Scottish heroine, 1720-90; b. in the island of South Uist, one of the Hebrides. When the pretender, Charles Edward Stuart, after the battle of Culloden, in 1746, fled and was pursued by the king's troops, he was rescued by the exertions of Flora, and conducted by her disguised as her female servant to the isle of Skye. They were assisted by lady Macdonald, who committed them to the care of Macdonald of Kingsburgh. A reward of £30,000 was offered for the prince. When the act of Flora became known she was arrested, and, after being kept five months on various vessels of war, she was sent to London, but soon discharged under the indemnity act of 1747. In 1750 she returned to Scotland, and was married to Allan Macdonald of Kingsburgh. They emigrated to America in 1774, and settled in Fayetteville, N. C. In the revolutionary war Macdonald took the part of the British, and served in the army. Flora returned to Europe alone, but was soon joined by her husband. Her four sons entered the British army.

MACDONALD, GEORGE, b. Huntley, Scotland, 1824; educated at King's college and Aberdeen university, and studied for the ministry at the Independent college in Highbury, London. He was for some years a Congregational minister, but, quitting the ministry, he removed to London and devoted himself to authorship, in which he has attained a high position as a novelist and poet. In 1872-73 he visited the United States, chiefly on a lecturing tour, but preaching in a few pulpits. His first book, *Within and Without*, a dramatic poem, appeared in 1856, and among his later publications are: *David Elginbrod*, 1862; *Annals of a Quiet Neighborhood*, 1866; *Robert Falconer*, 1868; *Wilfrid Cumbermede*, 1871; *Malcolm*, 1874; *The Marquis of Lossie*, 1877; *Sir Gibbie*, 1879; and *Mary Marston*, 1881. He has written also on theological subjects, and his novels have much theology and practical religion. His thought is original and vigorous, while he is master of a clear and elegant style.

MACDONALD, Sir JOHN ALEXANDER, D.C.L., b. Canada, 1815; was called to the bar in 1835, and was returned to parliament in 1844 as conservative member for Kingston, which city he has continued to represent. In 1847 he became a member of the executive council and receiver-general, and later in the same year commissioner of crown lands. He was in opposition 1850-54, and in the latter year entered a coalition cabinet as attorney-general, holding office till 1862, when the ministry, upon the defeat of their militia bill, resigned. In 1864 he entered the cabinet of sir E. P. Tache as attorney-general. A coalition was now formed between the leaders of the government and the opposition on the bill to unite all British America under a federal government. In 1865 sir John became minister of militia; in 1868, minister of justice and attorney-general; and in 1869 premier in the Dominion cabinet, going out of office in 1873. He formed another cabinet in 1878, taking himself the post of minister of the interior.

MCDONNELL, Sir RICHARD GRAVES, LL.D., b. Ireland, 1815; educated at Trinity college, Dublin, and called to the Irish and afterwards to the English bar. He was made chief-justice of the Gambia district, Africa, in 1843, and governor of the British settlements on the Gambia in 1847. In the latter capacity he conquered a number of hostile native tribes, and explored a considerable portion of Africa from the Gambia to the Senegal. In 1852 he became governor of St. Vincent, and in 1855 governor-in-chief of South Australia. He was appointed lieut. gov. of Nova Scotia in 1864, and was governor of Hong-Kong, 1865-72.

MCDONOUGH, a w. co. in Illinois; 576 sq.m.; pop. '80, 27,985. The surface presents an undulating appearance, and is chiefly fertile prairie land. It is drained by Crooked creek, and intersected by the Chicago, Burlington and Quincy, and the Toledo, Peoria and Warsaw railroads. The productions are wheat, rye, Indian corn, oats, wool, butter, and potatoes. There are a large number of flour and saw mills, and manufactories of carriages and saddlery and harness. Co. seat, Macomb.

MCDONOUGH, THOMAS, 1783-1825; b. Del.; became a midshipman in 1800, and three years later was on the frigate *Philadelphia* in Preble's expedition against Tripoli; he was also attached to the schooner *Enterprise* under Decatur, and was one of the party which recaptured the *Philadelphia* from the Tripolitans in 1804. He was made a lieut. in 1807, and a master-commandant in 1813. On lake Champlain, in 1814, he defeated the English fleet under commodore Downie. At the time of his death he commanded the Mediterranean fleet.

MCDUGAL, DAVID D., b. Ohio, 1809; entered the navy, 1828; made lieut. in 1841, and commander in 1857. While in command of the *Wyoming* in 1863, he fought off the coast of Japan (with six Japanese batteries firing on him) three ships of the Japanese navy, and succeeded in defeating them. He was made commodore in 1869, and was retired in 1871.

MCDUGALL, ALEXANDER, 1731-86; b. Scotland; a printer, and in 1770 sentenced to imprisonment for libeling the provincial government of New York, where his father had settled in 1755. He served through the revolutionary war with distinction, became a maj.gen., and took an active part in the battles of Germantown and White Plains. From 1778 to 1780 he was in command of the forts along the Hudson, and in 1781 was elected to congress.

MCDUGALL, JAMES A., 1817-67; b. N. Y.; began the practice of law in Illinois in 1837, and was state attorney-general in 1842 and 1844; settled in San Francisco in 1849, and the next year was elected attorney-general of California. He was a democratic member of congress, 1853-55, and U. S. senator, 1861-67; in the latter body acting as chairman of the Pacific railroad committee, and belonging to that section of the democratic party known as "war democrats."

MCDOWELL, a co. in w. North Carolina, bounded on the w. by the Black mountains; 550 sq.m.; pop. '80, 9,836. The valleys are fertile, and produce wheat, rye, Indian corn, oats, Irish and sweet potatoes, wool, and butter. Co. seat, Marion.

MCDOWELL, the extreme s. co. of West Virginia, on the border line of Virginia, watered by a fork of the Sandy river; 900 sq.m.; pop. '80, 3,074. It is mountainous in the s. and e. parts. The productions are: Indian corn, oats, Irish and sweet potatoes, tobacco, butter, and wool. Co. seat, Perrysville.

MCDOWELL, EPHRAIM, 1771-1830; b. in Rockbridge co., Va.; attended medical lectures in Edinburgh in 1793-94; settled in Danville, Ky., in 1795, and became the leading practical surgeon in several states. He performed the first operation recorded in this country in ovarian surgery at Danville, in Dec., 1809. A report of this and of other cases, from the pen of the operator himself, appeared in the *Eclectic Repertory and Analytic Review* in 1816. He was skillful in every branch of the surgical art, having cut no less than 32 times for stone in the bladder without losing a single case.

MCDOWELL, IRWIN, b. Columbus, Ohio, 1818; was educated partly at a French military school, and afterwards at the military academy of West Point, where he graduated in 1838, remaining there until 1845, in the service of the government. He served in the war with Mexico, and was brevetted a capt. for good conduct at the battle of Buena Vista. After the close of the war he acted as assistant adjt.gen., being assigned to duty in various departments until 1858, when he occupied a year's leave of absence in visiting Europe. In 1861 he was in Washington, and at the outbreak of the rebellion was employed in organizing the volunteer troops. He was commissioned brig.gen. U. S. army, May 14, 1861, and on May 27 was appointed to the command of the army of the Potomac, of which army he was the head during the disastrous defeat at Bull Run, July 21. On being superseded in this command, he was placed in charge of the defenses of Washington, but Mar. 14, 1862, was commissioned a maj.gen. of volunteers, and given a corps command in the army of the Potomac. He served in northern Virginia, and at the second defeat of Bull Run. During the last year of the war he was employed on court-martial duty, and in command of the department of the Pacific. In 1865 he received his brevet of maj.gen. in the U. S. army, and the following year was mustered out of the volunteer service. He has since been commissioned maj.gen. U. S. army, and has commanded the departments of the east, the south, and the Pacific, being still (1881) in the latter command.

MCDUFFIE, an e. co. in Georgia, having the Little river for its n. boundary, and intersected by the Georgia railroad; 350 sq.m.; pop. '80, 9,449. The surface is varied, generally heavily timbered, and the soil is fertile. Co. seat, Thomson.

MCDUFFIE, GEORGE, 1788-1851; b. Ga.; graduated at South Carolina college, entered the bar in 1814, and was chosen a member of the South Carolina legislature in 1818. In a duel arising out of a political dispute he received a wound, from the effects of which he never fully recovered. From 1821 to 1834 he was a member of congress, where he opposed internal improvements and the protective tariff, and in his capacity as chairman of the ways and means committee, defended the U. S. bank. In his earlier public career he had been an advocate of a centralized government; but in congress, following the general sentiment of his state, he advocated states rights, and was one of the ablest defenders of the right of nullification during the controversy between the federal government and South Carolina, which had its immediate cause in the hostility of the latter to a high protective tariff, and was carried on from 1820 to 1832. In 1835, having resigned his seat in congress, he was elected governor of South Carolina; and he was a U. S. senator from 1843 to 1846, when ill-health compelled him to resign.

MACÉ, JEAN, b. Paris, 1815; of a working family, but given a solid education. At 20 he was a teacher of history in the college Stanislas. When the revolution of 1848 brought the republic, he supported the new government with enthusiasm, as one of the editors of *La République*. On Napoleon's *coup d'état*, in 1851, he was obliged to leave Paris, and became teacher of natural sciences and literature in a seminary for girls in Alsace. Here he conceived the happy plan of popularizing scientific studies for children, and began by the publication of the *History of a Mouthful of Bread*, or letters to a little girl, explaining, with the interest of a story, the laws of physiology pertaining to digestion. This plan was continued in a series of books published in France which have had a great popularity. In 1863 he joined Hetzel in the conduct of the *Magazin d'Education et de Récréation*. In 1866 he had organized a teachers' league of 30,000 members, which promoted popular education not only through schools, but also through the formation of communal libraries, and by its pressure in favor of free and obligatory education. We translate a few of the titles of Macé's admirable books for children: *Stories of the Little Château; Theater of the Little Château; History of Two Apple Mer-*

chants; Servants of the Stomach—a sequel to the *History of a Mouthful of Bread; The Eye; Letter of a Peasant of Alsace to a Senator; The Separation of the School and the Church; and Half Instruction*. The last two works are intended to lay out the work of the teachers' league (*ligue de l'enseignement*) of which Macé is president.

MACEDO'NIUS, Patriarch of Constantinople (A.D. 341). See MACEDONIANS, *ante*.

MACEDO'NIUS was nominated bishop of Constantinople by the emperor Anastasius I., about 496 A.D. Because he had subscribed the henoticon, or "decree of union," which the emperor Zeno had issued in 482, the monks of the capital renounced fellowship with him and persistently rejected his advances towards reconciliation. Yet, in accordance with his general mildness, he abstained from treating them severely. About 511, having, by his recognition of the council of Chalcedon, incurred the displeasure of the emperor, he was deposed and banished by him on a charge of heresy and crime. The church in all parts of the empire pronounced this sentence unjust, and Vitalian the Goth, in 514, rose up in arms against it, but without success. Two years afterwards Macedonius was released from exile by death.

MACEIO, or MACAY'O, a city in the province of Alagôas, in Brazil; pop. 8,000. It has 3 churches and as many schools. The inhabitants are agriculturists, and there is a considerable manufacture of rum. At its port, Jagnará, there is some ship-building, and sugar and cotton are exported.

MCENTEE, JERVIS, b. Rondout, N. Y., 1828; devoted himself to the study of landscape painting with F. E. Church; and, in 1858, opened a studio in New York, where he soon obtained a high position among American artists. His principal success was gained in depicting mountain scenery, and by his skill in the treatment of foliage. His style is refined, his brush being handled with delicacy, though vigorously, and he is specially notable for luminous effects. In recent years he has undertaken figure-painting, and has given evidences of ability in this direction, apparently equal to that which has been conceded to him as a landscape artist.

MACERA'TA, a province in e. Italy, in the marches on the Adriatic coast; 1057 sq. m.; pop. 236,994. The Apennines intersect it, and much of the country is mountainous and incapable of cultivation. The valleys and level districts are fertile, and in them large quantities of corn and wine are raised. Capital, Macerata.

MACFARLANE, ROBERT, 1734-1804; b. Scotland; educated at Edinburgh and was for a time editor of the *Morning Chronicle*. He published an edition of *Ossian* in the Gaelic, with a Latin translation, and it is said that he was concerned with Macpherson in the production of the Ossianic poems.

McFERRIN, JOHN BERRY, D.D., b. Rutherford, Tenn., 1807; admitted as a preacher in the Methodist Episcopal church in 1825, and was a missionary for two years among the Cherokee Indians. In 1840 he began to edit the *Southwestern Christian Advocate* at Nashville, which he continued for 18 years; was in 1858 appointed book-agent of the Methodist Episcopal church; in 1866 was made corresponding secretary of the board of missions. He is the author of *History of Methodism in Tennessee*, 3 vols., and assisted in the preparation of *Redford's History of the Organization of the Methodist Episcopal Church, South*.

MACGA'HAN, JANUARIUS ALOYSIUS, 1844-78; b. Ohio; of Irish-American parentage. He commenced the practice of composition when quite young, and entered journalism as a correspondent. In 1868 he visited Europe, and at the outbreak of the Franco-German war was attached to the staff of the *New York Herald*, and accompanied the army of Bourbaki, whose defeat and retreat into Switzerland he described in his letters. He was in Paris during the *Commune* and wrote vigorous and graphic description of the scenes and incidents of the time. On one occasion he was arrested, and was preserved from death at the hands of the infuriated communists only by the intervention of the American minister. During the summer of 1871 he traveled through Europe, and in the autumn was ordered by the *Herald* to Russia, where he remained during the following year. The Russian expedition to Khiva in 1873 was attended by MacGahan in the capacity of correspondent of the *Herald*, despite the positive directions to the contrary of gen. Kaufmann, commanding the expedition. The pertinacity, shrewdness, and good-nature with which the American persisted in carrying his point insured his success; and, though at times hunted by Cossacks under orders to restrain him, he was able to fulfill his engagement, and convey intelligence to the journal employing him that reached the public in no other way. The information which he gained during the progress of this expedition was afterwards published by MacGahan in book-form under the title *Campaigning on the Oxus and the Fall of Khiva*. The latter part of the year 1873 was spent by MacGahan at his home in Ohio and in Cuba; and in the spring of 1874 he was in London, whence he was ordered by the *Herald* to proceed to Spain to report the Carlist outbreak of that year. He joined the army of Don Carlos, and accompanied it for ten months, continuing a voluminous and graphic correspondence with his journal during the progress of the campaign. While in Spain he fell into the hands of the republicans, was mistaken for a Carlist, and again owed his life to the intervention of the representative of his government. In 1875 he accompanied the *Pandora* expedition toward the north pole, organized by the editor of the *Herald* and capt. Allen

Young, and on his return published an account of his experiences with the title *Under the Northern Lights*. He now resigned from the employ of the *Herald*, and entered that of the London *Daily News*; and in June, 1876, took his departure to join the Turkish army in the capacity of war-correspondent of that journal. But the progress of this duty soon brought to MacGahan's ears rumors of the commission of horrible barbarities by the Turkish guerrillas (Bashi-Bazouks) in Bulgaria, and he repaired to that country to witness for himself and to the world the truth or falsity of these statements. The horrible evidences of the malignant cruelty which had characterized Turkish warfare in Bulgaria roused in the American feelings of the most intense indignation, and he recapitulated the history of his experiences in the columns of the *Daily News* in language which awakened the profoundest sympathy on the part of the British public, and, indeed, wherever the terrible story found readers. Concerning the extraordinary series of letters which at this period drew the attention of the civilized world to the columns of the *Daily News*, the following, from the pen of Archibald Forbes, who was long associated with MacGahan, will be read with interest: "MacGahan's work in exposing the Bulgarian atrocities of 1876 produced very remarkable results. As mere literary work there is nothing that I know of to excel it in vividness, in pathos, in a burning earnestness, in a glow that thrills from the heart to the heart. His letters fired Mr. Gladstone into a convulsive paroxysm of revolt against the barbarities they described. They stirred England to its very depths, and men traveling in railway carriages were to be noticed with flushed faces and moistened eyes as they read them. Lord Beaconsfield, then premier of England, tried to whistle down the wind the veracity of the exposures they made. The master of sneers jibed at the "coffee-house babble" that was making the nations to throb with indignant passion. A British official, Mr. Walter Baring, was sent into Bulgaria on the track of the two Americans, MacGahan and Schuyler, with intent to break down their testimony by cold official investigations. But, lo! Baring was an honest man with a heart; and he who had been sent out to curse MacGahan blessed him instead altogether, for he more than confirmed his figures and pictures of murder, brutality, and atrocity. It is not too much to say that this Ohio boy, who three years ago was laid in his all too-premature grave on the shore of the Hellespont, changed the face of eastern Europe." It is stated that, on leaving the unhappy Bulgarians, MacGahan said to them: "Before a year is past you will see me here with the army of the czar." This assurance was verified by the event. Early in 1877 he went to St. Petersburg, and accompanied the Russian column throughout the succeeding war, indefatigable in the pursuit of his professional duties and enthusiastic in the cause which he had taken so much to heart. He was preparing to attend the international congress at Berlin when he was struck down by fever, and died in Constantinople after a few days' illness, June 9, 1878. MacGahan was a type of a class of journalists whose names can be numbered on the fingers of one hand: Russell, Sala, Stanley, Forbes, MacGahan. After them come a long list of names, chiefly American, including Albert D. Richardson, John Russell Young, Eugene Schuyler, Whitelaw Reid, etc., through whose additional labors the art of the newspaper correspondent has become recognized and respected.

McGEE, THOMAS D'ARCY, 1825-68; b. Ireland; emigrated to America when 17 years of age, and settled in Boston, Mass., where he contributed to the *Pilot*, of which he became editor. He returned to Ireland in 1845 and remained until 1848, writing for the Dublin *Nation* and interesting himself in the repeal movement. He again crossed the ocean, and for the next 9 years was the editor of the *New York Nation*, afterwards the *American Celt*. In 1857 he changed his residence to Canada, and established *The New Era* in Montreal, being also elected a member of parliament, a position to which he was constantly re-elected until his death. He was also twice a member of the ministry, and for one term president of the executive council. He was a prominent advocate of the movement for the union of the provinces, and drafted the plan on which that was afterwards effected. He opposed the Fenian movement, a fact which is supposed to have caused his death. He was assassinated April 7, 1868, by one Whealen, at the door of his hotel, after a night session of parliament. He was an able journalist, a brilliant public speaker, and the author of a number of important works. Among these are: *History of the Irish Settlers in North America, from the earliest period to 1850*; *History of Attempts to establish the Protestant Reformation in Ireland*; *Sketches of O'Connell and his Friends*; *Popular History of Ireland*; and a volume of poems.

MACGEOGHEGAN, JAMES, 1698-1760; b. Ireland; pursued his studies at Rheims, and taking holy orders became chaplain of the Irish brigade attached to the French army. At the instance of a number of distinguished Irishmen in the French service, he wrote in French a *History of Ireland*, which was translated into English in 1835.

McGILL, JOHN, D.D., 1809-72; b. Philadelphia; emigrated in childhood to Bardstown, Ky.; graduated at St. Joseph's college; practiced law in New Orleans and in Kentucky; studied theology at Baltimore and Rome; took priest's orders in 1830 in the Roman church at Bardstown; preached in Lexington, Ky., and in 1850 was consecrated bishop of Richmond, Va. He took a prominent part in the Vatican council. He is said to have been an able preacher and a distinguished controversial writer.

McGILLIVRAY, ALEXANDER, 1740-93; b. Ala.; son of a Scotch trader named McGillivray, and a half-breed daughter of a French officer. He received a good educa-

tion at Charleston, and was for a time in mercantile business at Savannah, but soon came back to the Creek Indians, whom he led, on the royalist side during the revolutionary war. At its close he negotiated an alliance between the Creeks and Seminoles, and Spain; and he became an agent of the latter. In 1790 he was a party to a treaty granting a considerable territory to the United States, and was made a brig.gen. and U. S. agent.

MCGILLIVRAY, WILLIAM, LD.D., 1796-1852; b. Scotland; graduated at King's college, Aberdeen, where, and at Edinburgh, he studied medicine. He never took a medical degree, but devoted himself to his favorite study of natural history. In 1823 he was appointed keeper of the Edinburgh university, and in 1831 curator of the museum of the royal college of surgeons at Edinburgh. In 1841 he was appointed professor of natural history in Marischal college, Aberdeen. His most important works are: *A History of British Birds*, 5 vols., 1837-52; *A Manual of British Ornithology*, 2 vols., 1840-41; and *The Flowering Plants of Great Britain and Ireland*.

MCGREADY, JAMES; supposed to have been b. in Pennsylvania about 1760; after being educated at Jefferson college, entered the ministry of the Presbyterian church; labored for a time in North Carolina; in 1796 removed to s.w. Kentucky, where he was prominently connected with a remarkable revival of religion, which continued for several years, leading to the ordination of men to the ministry who had not received a regular theological training. These ordinations led to controversies which culminated in 1810 in the organization of the Cumberland Presbyterian church, a denomination of much strength and influence in Kentucky, Tennessee, and some other states.

MCGREGOR, a village of Iowa, capital of Clayton co., on the Chicago, Dubuque and Minnesota railroad; pop. 2,074. It has excellent schools, 6 churches, 2 weekly newspapers, and manufactures of carriages, wagons, etc.

MCGREGOR, JOHN, 1797-1857; b. Scotland; after engaging in business in Canada, returned to England and was sent by the government on commercial mission to several states on the continent. In 1840 he was made a secretary to the board of trade, which office he gave up in 1847, to accept a seat in parliament as a member for Glasgow. In parliament as previously he was a supporter of free trade. He was the author of, among other books, *Commercial and Financial Legislation of Europe and America*, 1841; *Commercial Statistics of all Nations*, 1844-50; and *History of the British Empire from the Accession of James II.*, 1852.

MACGREGOR, JOHN, b. at Gravesend, England, 1825; graduated at Trinity college, Cambridge, and entered at the Middle Temple in 1847. In 1849-50 he made a tour of Europe, Egypt, and Palestine, and on his return was called to the bar. He afterwards visited every European country, as well as Algeria, Tunis, the United States, and Canada; was a writer for *Punch* and other periodicals; in 1865 made a canoe voyage, of which he afterwards gave an account in a book entitled *A Thousand Miles in the Rob Roy Canoe on Rivers and Lakes of Europe*. Other voyages of the same kind followed, of which we have record in *The Rob Roy on the Baltic*, *The Voyage Alone in the Yawl Rob Roy*, and *The Rob Roy on the Jordan*, all of which have been widely read.

MCGUFFEY, WILLIAM HOLMES, D.D., LL.D., 1800-73; b. Penn.; removed in youth to Ohio; graduated at Washington college 1825; was a professor in Miami university 1836-39; president of Ohio university 1839-45; and professor of moral philosophy in the university of Virginia from 1845 until his death. He was also the compiler of a series of readers and other school books, of which immense numbers were sold.

MCGUIRE, HUGH HOLMES, 1801-75; b. Winchester, Va.; graduated in medicine at the university of Pennsylvania, 1821. Was professor of surgery in the Winchester medical college from its organization to its destruction during the civil war. He operated fifteen times for stone in the bladder without losing a case. He was vice-president of the American medical association in 1849.

MCGUIRE, HUNTER HOLMES, b. Winchester, Va., 1835; son of Hugh Holmes; was made M.D. in 1855, and professor of anatomy in the Winchester medical college in 1858. Entering the confederate army as a private he soon became director of the 2d army corps of northern Virginia and medical surgeon to gen. "Stonewall" Jackson. Was made professor of surgery in Virginia medical college at Richmond. He has operated for stone in the bladder 47 times since the civil war, and contributed articles to medical journals, and has performed the operation of ligating the abdominal aorta, the patient living 12 hours afterwards. See LIGATURE.

MACHÆRODUS, a genus of extinct carnivorous animals of the feline or cat family, presenting the most specialized example of the carnivorous type known. The upper canines have a most extraordinary development, being long, saber-shaped, with finely serrated margins. The upper jaw has no true molars, and in the under jaw the premolars are reduced to 2 on each side. The dental formula is

$$i. \frac{3-3}{3-3}; c. \frac{1-1}{1-1}; pm. \frac{2-2}{2-2}; \frac{0-0}{0-0} = 26.$$

These formidable flesh-eaters are called "saber-toothed tigers," but some of the species resembled the lion, and are spoken of as lions by some authorities; and were fully the size of the largest of the present *felis leo*. They had a wide distribution in space and time, their fossils being found in Great Britain, in various parts of the continent of Europe, in India and other parts of Asia, and in North and South America, ranging in time from the miocene formation to the middle of the quaternary, or human age. The bones of *macharodus primæus*, from the Bad Lands of Dakota indicate an animal somewhat smaller than the American panther; with smaller cranium and orbit, and also described as differing in dental formula from that given above, having 3 upper incisors, and 3 upper premolars on each side instead of 2, making in all 30 teeth instead of 26. There is another larger species from the same locality, but with less perfect remains. *M. cultridens*, from the tertiary of the Val d'Arno is of large size, having upper canines 8½ in. along the anterior curve, while *M. neogæus*; from quaternary caverns of Brazil was still larger, having upper canines projecting 8 in. beyond their sockets. The bones of these animals are often found along with those of several species of quadrupeds, and of mammoth deer, bears, horses, elephants, and also various others of their own family, as hyenas, tigers, and extinct lions; in fact, they flourished in the age of mammals, and must have made sad havoc among the more defenseless animals.

MACHÆRUS, a strong fortress of Perea. Josephus says it was originally a tower built by Alexander Jannæus as a check to the Arab marauders. It was on a lofty point, surrounded by deep valleys, and of immense strength both by nature and art. After the fall of Jerusalem it was occupied by the Jewish banditti. The Jews say it was visible from Jerusalem. Its site was identified in 1806 by Seetzen with the extensive ruins now called *Mkrauer* on a rocky spur jutting out from Jebel Attarus towards the n., and overhanging the valley of Zerka Main. Josephus says it was the place where John the Baptist was imprisoned by Herod and beheaded by his order.

McHALE, JOHN, D.D. b. Tubbernavine, Mayo, Ireland, 1791; studied at Maynooth college, ordained priest in 1814, and appointed professor of theology; in 1825 was appointed assistant bishop of Killala; titular bishop in 1834, and archbishop of Tuam the same year. He wrote two series of letters on Roman Catholic emancipation; in 1827 published a treatise on the *Evidences and Doctrines of the Catholic Church*, which was translated into French and German; built a cathedral at Ballina; built or repaired 100 churches in his diocese; established numerous convents and parish schools; preached in Rome in 1831 several sermons which were translated into Italian; in 1848 he went to Rome and obtained from the pope the condemnation of the Queen's college in Ireland; in 1869 he procured from a council of Irish bishops a vote of censure of mixed education. He was a rigid Romanist, earnestly opposed Protestant missionary societies among his flock, and promoted the formation of Roman Catholic schools and colleges. He published Irish translations of 6 books of the *Iliad* and of the *Pentateuch*, and 60 of Moore's Irish melodies in the same meter as the original, with the ancient airs.

McHENRY, a co. in n. Dakota, drained by the Mouse and Cheyenne rivers; 1650 sq.m.; the population of this and four other contiguous counties is given in the census of 1880 at 247. The surface comprises undulating prairie land, varied by large sand hills and buttes.

McHENRY, a co. in n.e. Illinois, on the borders of Wisconsin, drained by the Fox and Des Plaines rivers, and intersected by the Chicago and Northwestern railroad; 470 sq.m.; pop. '80, 24,914. This is a limestone region, having a flat surface, and generally fertile soil. The leading productions are Indian corn, wheat, oats, barley, hay, potatoes, flaxseed, wool, butter, and cheese. Co. seat, Dorr.

McHENRY, JAMES, 1753-1816; b. Md.; was an aid-de-camp to Lafayette in the revolutionary war, member of congress 1783-86, a member of the convention which framed the federal constitution, and secretary of war from 1796 to 1800. Fort McHenry, off Baltimore, is named after him.

MACHIAS, a t. in Maine, near the mouth of the Machias river; pop. '80, 2,203. It was settled in 1763, and incorporated in 1784. The inhabitants are somewhat engaged in the fisheries, and there are a few manufacturing establishments.

MACHIAVELLI, NICCOLO. See **MACCHIAVELLI**, *ante*.

MACHINERY, POLITICAL ECONOMY OF (*ante*). The various questions that have from time to time arisen concerning the relation of machine labor to human labor have been entertained generally on a basis of pure speculation, owing to the absence of statistics whereupon to base positive reasoning. Of course, in the consideration of such a subject, the advocates of the largest use of machinery have the advantage. The blessings of the application of power to the reduction of human labor are prominent and undeniable. The multiplication of manufactures through the use of so powerful a force is a fact which cannot be gainsaid. The reduction of the possibilities of art to an automatic basis, thus relieving the individual mind from tension and the individual morality from responsibility, offers attractions. In the face of the absence of statistical evidence to the contrary, the absolute and positive deductions to be made from observation alone are all in favor of the most widespread employment of steam-power and machinery. It has, therefore, been comparatively easy for the advocates of the largest possible

expression of mechanical force in manufacture, to formulate statements as argument, strongly sustaining their view of the question, and against which no well-founded objection could be made. Such statements have gradually assumed the character of the following propositions: 1st, that so-called "labor-saving" machinery enables the laborer to save his muscle and improve his mind; 2d, that it lowers the price of luxuries, and makes them measurably attainable by the laboring classes; 3d, that while displacing certain kinds of labor, it creates a necessity for certain other kinds, thus bringing about merely a change of relation and not of existence; 4th, it enables the prosecuting of vast enterprises, involving only the concentration of capital; 5th, it increases the capacity for foreign trade; 6th, it favors the laborer by procuring for him higher wages with greater purchasing power than were possessed by his forefathers. In support of these propositions, those who make them offer evidence which is patent to all as a matter of universal observation. As simple statements, taken by themselves, they are undeniable. Their acceptance involves, also, by a process of inexorable logic, the acceptance of the largest possible increase of mechanical power and machinery as beneficent agents in the constant improvement of the condition of the race.

But exactly here arises the action of a principle which has been fairly enunciated by Bagehot, in his *Physics and Politics*, to the effect that the tendency of reaction in natural law, which becomes potent when this is carried to an extreme, is, first, to bring about an equilibrium of conditions—which is dangerous; and, next, to produce a preponderance in the exercise of force in one direction or another—which is hurtful. The simplest form of expression of this principle is found in the conditions of life and activity as applied to every class of existence, in the threefold movement of growth, maturity, and decay. Its more complicated expression is the result of an abnormal and artificial activity; and this, it has been claimed, is incidental to the over-use of machinery: and the recognition of this principle, it is claimed, establishes the possibility of such an over-use, and furnishes the first logical argument against the propositions advanced by the advocates of the largest possible employment of machinery. The application of the laws of mechanics to the construction of machinery dates back in positive history to about the 3d c. B.C. There are also hints at the existence of mechanism of various kinds at a much earlier period among oriental nations. It is worth remarking that the discoveries and inventions prior to the middle of the last century were all in the direction of *aiding* mankind in their labors, and that it was not until the first application of machinery to manufactures—in the period between 1690 and 1750—that this condition was changed, and that of *saving* labor contemplated. It is, however, a fact, that in 1618 a patent (number 6) was granted in England to David Ramsey and Thomas Wildgosse, which included in its specifications engines for plowing without horses or oxen, and for raising water to great heights; and a plan for making boats run "as swifte in calmes and more saff in stormes then boats full sayled in Greate Wynes." But of this and other inventions of the 16th and 17th centuries, there was no recorded result of "labor-saving." Half a century ago, Thomas Carlyle discerned a condition whose continued existence has since given occasion for much discussion of the political economy of machinery. Then he wrote: "Cotton cloth is already twopence a yard lower, and yet bare backs were never more numerous among us. Let inventive men cease to spend their existence incessantly contriving how cotton can be made cheaper; and try to invent, a little, how cotton at its present cheapness could be somewhat justlier divided among us." Following him, Thomas Love Peacock, an English author of distinction, wrote as follows: "Ports resounding with life, in other words, with noise and drunkenness, the mingled din of avarice, intemperance, and prostitution! Profound researches, scientific inventions, to what end? To teach the art of living on a little? To disseminate liberty, independence, health? No! to multiply factitious desire, to stimulate depraved appetites, to invent unnatural wants, to heap up incense on the shrine of luxury, and accumulate expedients of selfish and ruinous profusion. Complicated machinery: behold its blessings! Twenty years ago, at the door of every cottage, sat the good woman with her spinning-wheel. The children, if not more profitably employed than in gathering health and sticks, at least laid in a stock of health and strength to sustain the labor of maturer years. Where is the spinning-wheel now, and every simple and insulated occupation of the industrious cottage? Wherever this boasted machinery is established, the children of the poor are death-doomed from their cradles."

Next Emerson sounded a warning note: "A sleep creeps over the great functions of man. Enthusiasm goes out. In its stead, a low prudence seeks to hold society stanch; but its arms are too short: *cordage and machinery never supply the place of life.*"

And then John Ruskin, whose whole lifetime has been devoted to the exposure of error, the annihilation of sham, and the rooting-up of that which was untruthful, wrote in this wise: "If you find in the city you live in, that everything which human hands and arms are able, and human mind willing to do—of pulling, pushing, carrying, making, or cleaning—is done by machinery, you will come to understand what I have never yet been able to beat, with any quantity of verbal hammering, into my readers' heads, that as long as living breath-engines and their living souls and muscles stand idle in the streets, to dig coal out of pits to drive dead steam engines is an absurdity, waste, and wickedness."

It is thus obvious that to certain minds, and these of the deepest and clearest, the

accepted and apparently obvious position of machinery in its relation to human labor has appeared to be at least doubtful. And this conclusion is not confined to the minds of statesmen and political economists. The instinct of the laboring-class scented a dangerous enemy from the period of the first application of power to machinery. The history of manufacturing in Great Britain, France, and Germany, from the date of the first intervention of this force, is pointed by constantly recurring periods of antagonism between the laborer and the machine. Between the political economist and the hand-worker there is a wide distance, which was bridged over in this instance by authors in every department of literature, and orators upon every subject. Adam Smith published his *Inquiry into the Nature and Causes of the Wealth of Nations* in 1766, at which date the use of machinery with the application of water-power was prevalent in England. In the work above-named, he says: "The liberal reward of labor, as it is the natural effect, so it is the natural symptom of increasing national wealth. The scanty maintenance of the laboring poor, on the other hand, is the natural symptom that things are at a stand, and their standing condition that they are going fast backward."

This being the fact, the relative condition of wages in connection with the employment and non-employment of machinery becomes an important factor in the question; so also does the relation of the product of machine-labor to capital; and no less the character of the product of machine-labor, as to whether it be of a better quality than that which can be produced by hand-labor. And the further question arises, whether the acknowledged increase of power to export manufactured articles, the result of the extended use of machinery, be economically beneficial to a country. All these points are to be considered—with others—in the endeavor to reach a just conclusion as to the main question. It is interesting to note that each of them has been considered—separately—by men eminent in different departments of learning. By combining conclusions formed under such circumstances, it is practicable to gain an expression of opinion which cannot fail to be of value.

A few years since, when the balance of trade had first turned in favor of the United States, and shipments to foreign ports, already enormous, were increasing in a ratio quite unexampled, Mr. Edward Atkinson, an acknowledged authority, expressed himself as follows: "The alleged abundance of money consists of loanable capital in cotton, corn, coal, and the like, seeking use. It finds its first expression in the attempt to open foreign markets, and the strange picture of an excessive shipment to foreign lands, while thousands in this country are insufficiently supplied. The normal condition has to be reached, in which process the exports in ratio to numbers now excessive may again decline, and the exports and imports become nearly equal—a condition far more consistent with true welfare."

The situation as here pictured, and which is certainly the direct result of the application of comprehensive mechanical power, will be seen to be analogous to that indicated in the passage heretofore quoted from Thomas Carlyle. Again, the multiplication of the possibilities of machinery is claimed, and justly, to have cheapened the cost of manufactured goods, and it is contended that this result is beneficent. An editorial writer in the *New York Tribune*, Aug. 7, 1878, attacked this question after the following fashion: "Go down the streets where cheap shops abound in any American city, and you will see these girls by the hundred flaunting along the sidewalk, with their sleazy dresses made up in the last fashion, their voices loud and defiant, their whole manner drunken with silliness and vanity. It is time we spoke the truth about this class, for it is from among them that the lowest of all classes is recruited every year. The majority of fallen women in this or any American city are not those who have sold their birthright for love, or who have been tempted to their undoing, but these vain, ignorant girls to whom dress and adventure are the wine of life."

Even the manufacture and use of the sewing-machine have not been without their opponents, prominent among these being Thurlow Weed, who alleges that these have resulted "in throwing tens of thousands of poor women out of employment, and affecting the morals of the country alarmingly." A writer in the *New York Times*, a few years since, made the following extraordinary statement: "The use of machinery not only is a fixed fact, but that use is constantly increasing; every person concerned with it, from the inventor who shapes the machine, to the user of it, acts for his own immediate benefit, and never troubles himself about the community; on the other hand, labor is superabundant, and the question of social order and progress is really the question of the real effect of machinery on labor."

This, again, was more than paralleled by an utterance of ex-secretary Boutwell, to the following effect: "Thus faculty, which is a systematic expression of intellectual power, is recompensed, while mere persons are becoming less important in the economy of labor."

And the following, translated from an article entitled *La Crise*, published in a French paper, the *Globe Illustré*, in Philadelphia, in 1877, is still more significant: "An English manufacturer has said and written: 'The insubordination of our working people has caused us to dream of the possibility of doing without them. We have made and encouraged all imaginable efforts of intelligence to fill the places of men by more docile instruments, and we are almost at the end. Mechanics has delivered capital from the oppression of labor. In fact, where we still employ a man, it is only provisionally;

waiting the hour when there shall be invented for us the means of performing his duty without him."

Of course the bearing of all of this on the question of the value of machinery as a cause of positive displacement is obvious. The editor of the French paper quoted above thus expresses his view of the probable result of a condition such as that suggested: "What kind of a system is this which suggests delight to the manufacturer in the hope that society can presently dispense with men. Fool! If your workmen cost you something, are they not also your buyers? What will you do with your products, when, disabled by you, these workingmen no longer consume them?"

The ultimate object of an investigation like the one here undertaken is to discern, if possible, whether the net result of the constant increase in the use of machinery be or be not beneficial to the race. The antagonists to this increase, which, as they contend, has arrived long since at a point where it has become hurtful, respond to the propositions in favor of it, already given, as follows: 1st. That experience shows that there is no time gained to the laborer by the intervention of machinery; while on the contrary its employment is such a strain upon the physical and moral nature of those engaged in running it, *ex necessitate rei*, that so far from being enabled to "improve his mind," the machine-worker depraves both body and mind in the mere struggle for existence. It is claimed by those who make this assertion that "the large manufacturing centers are vortices of vice; and that the lives of those who are appendages to mechanism are not only of less duration than the lives of hand-workers, but that such are forced by the nature of their employment to sustain themselves by the free use of stimulants. The drunkenness, immorality, and general degradation of the slaves of the 'labor-saving' machine, as it is employed in manufactures, is patent in every manufacturing town from Manchester and Sheffield to Lowell and Pittsburg." 2d. They allege that while machinery "lowers the price of luxuries," what were formerly necessities have now become luxuries to thousands by the operation of the same means, and it is manifest that the reduction of the cost of luxuries through the means of machinery to a price *almost* within the reach of the poor, must breed extravagance through added temptation. To that pleasant thing which is quite beyond our reach, we do not aspire; while for that which seems almost within our grasp, we have an insatiable longing. 3d. As to the displacement of human labor through the employment of machinery being apparent, and not real, they point to the constantly increasing prevalence of "tramping" as a business; to the low rate of wages; to the increased employment of prisons and alms-houses; and to the facts as to the capacity for displacement of the mechanical power in use, mathematically presented; and which must be real and not merely apparent in its application, since the means for restoring the balance must needs work so much more slowly. The number of persons in the United States engaged in manufactures by the use of machinery increased between 1850 and 1860, by 37 per cent, and between 1860 and 1870 by 56 per cent, an increase of 93 per cent in twenty years; of course representing, in combination with the quantity of mechanical power applied by each added individual, an amount of displacement quite incalculable. Meanwhile, the application of machinery to agricultural work caused a falling off of the percentage of increase in the number of hands employed, as between the same two decades, of 30 per cent. An illustration of the working of the application of machinery to farm labor in the matter of displacement occurs in the case of the Dalrymple farm in Dakotah, where, the harvest of 1880—cutting 25,000 acres of wheat, employing 20 steam threshing-machines, each with a man and a team, gotten out at the rate of 30 car-loads a day—returned a profit of \$250,000, the yield being 35 bushels to the acre. A little reflection on these figures, as to the number of laborers that could be supported from this farm alone, were it worked by hand-labor, will leave a vivid impression as to the displacement in this direction. It is a fact that farming on this scale has not been found profitable in the long run. According to ex-secretary Boutwell, "the tools upon a farm of any given capacity cost at least four times as much as the tools then in use would have cost in 1840." The subject of displacement is entertained by the same authority, in general terms, as follows: "The steam power of England represents, stands for, is equal to, the muscular force of a hundred million full-grown men." It is further contended for this side of the argument, that the tendency of the use of machinery is to the displacement of intelligent and skilled hand-labor, and that its employment involves a comparatively unintelligent and monotonous application to a purely mechanical vocation. As was said in an editorial article upon this subject in a leading New York journal, speaking for machinery, and on the labor-saving nature of its work, "I will do this for you and save your muscles; do you wait on me, make me, and carry what I produce." But the press has not infrequently reached conclusions adverse to the doctrines held by the advocates of the largest possible use of machinery. An editorial article in the New York *Herald* thus expressed such an opinion: "Ninety per cent of our people can, with the machinery we Americans use, produce all that the whole people can consume. That means that 36,000,000 can produce all that 40,000,000 can use, and that, unless we re-establish our foreign commerce, 4,000,000 at least must remain idle, and are condemned to beggary or starvation." This was written when the balance of trade was against the United States: a reference to the citation from Mr. Atkinson heretofore given will show that an extension of foreign

commerce did not remedy the evil. But the chief significance of the *Herald* statement rests in its presentation of the percentage of displacement. Thurlow Weed is responsible for the assertion that the increase in the use of machinery in the prosecution of farm-work "has thrown hundreds of thousands of men out of their ordinary employment." The *N. Y. Evening Post* of April 29, 1878, said, "The average daily wages earned by 2,042,209 working-men, as shown by the last census of 100 cities of America, was only 97 cents, and each had an average of only 180 days' employment a year." In 1850 the average annual wages of operatives in all manufactures, including mining and fishing, in the United States was \$247, the net average product per capita \$230, and the ratio of wages to gross product 22½ per cent. In 1860 these relations had changed to the following: average wages \$288; average product \$308; ratio of wages to gross product 20½ per cent. In 1870 the decline of wages in these relations still continued, the average wages being \$383, the average product, \$392; ratio of wages to gross product 19½ per cent. Now, while the average wages in these industries combined was in 1870 \$383 per annum, in manufactures alone it was \$288, and in mining alone \$482; while the ratio of wages to gross product in the latter industry was 48.75 per cent. And this clearly shows that as the laboring-man avoids connection with machinery his wages increase: the pay of hands engaged in copper-mining in the United States in 1870 was 67 per cent greater than that of operatives in the manufacturing industries. Carroll D. Wright, chief of the Massachusetts bureau of statistics, presented in his annual report for 1875 the figures resulting from an examination into the condition of 397 families of working men in that state. By these it is shown that the wages (earnings) of these working-men varied between \$221 for a day laborer, and \$980 for an iron-roller per annum. Of these the highest earnings were those of blacksmiths, brick-layers, teamsters, carriage-smiths, etc., those who worked without the aid of machinery.

It is interesting to note by the foregoing statistics that with the increased use of machinery between 1850 and 1870 there was a steady relative decrease in the receipts of manufacturing operatives in relation to the net product per capita. Yet, as will be shown hereafter, while the operator lost, the capitalist did not gain. The same difference between the amount of wages of manufacturing operatives and those engaged in mining is found existing in Great Britain as in the United States. There mining wages average \$375 per head, while those in manufacturing industries vary between \$175 and \$200. A further example of this relation is found in the fact that 167,000 persons employed in manufacturing machinery in English factories receive only an average of \$4 per capita per week, while men engaged in ship-building get \$1 per day. Again, in 1870 there were 5,404 hands employed in copper-mining in the United States, of whom 3,247 worked under ground; the average wages of these hands was \$5 per capita. With regard to this whole matter of wages, however, it is only fair to take into consideration the purchasing power of money at different times. The authoritative statement of the superintendent of the census (1870) concerning this subject should certainly be received with respect. Bearing in mind that the estimates of wages given in this paper reach no later than 1870, attention is requested to the following: "After much thought, and extensive inquiry on the subject, the superintendent is disposed to regard 56 per cent as a just statement of the increase in price for all classes of mechanical and manufactured productions between 1860 and 1870." And while prices increased 56 per cent during the decade given, wages increased only 33 per cent (\$288 in 1860; \$383 in 1870). It may be mentioned, also, that while the wealth of the country, the capital invested in manufactures, and the gross annual yield of that capital, have all doubled in periods of eleven years, the wages of the operative have increased only 52 per cent in twenty years.

These figures, it is contended by those whose argument we are now presenting, tend to show that the over-use of machinery in manufactures reduces wages. Of course, general high wages cannot occur during a period of displacement. Mr. David A. Wells has stated that "the labor of 225 persons (with the aid of the improved machinery in use) is as effective in 1876, in meeting the demands of the country for cloth and food products, as was the labor of 691 persons in effecting similar results in 1838; and as a consequence of this change in the power of production, the labor of 466 other persons has within this time and within the special industries under investigation, been rendered unnecessary; and they have been compelled to enter into relations with new wants and new capabilities of purchase in order to find employment." But, on examining other spheres of employment, we are met by the same state of things, with the ratio against the laboring-man, if anything, enhanced. Thus, we learn from Mr. Wells, that, in the stove manufacture, "3 men can now, with the aid of machinery, produce as many stoves as 6 men unaided could have done in 1860;" also, that in the manufacture of straw goods, through the sewing-machine, 300 hands do more than 1000 could have done a few years ago. Again, Mr. Wells says: "In the manufacture of boots and shoes, 3 men working with machinery can do at present what, prior to 1860, required the labor of 6 men to effect, while the individual or per capita consumption of boots and shoes in the United States has probably been more uniform during the same period than is the case with any other commodity." This last statement is important in showing that there is no abnormal or even healthy increase in the demand for boots and shoes, to

compensate for the displacement effected by machinery; this, too, being one of the largest and most important of our manufacturing industries. Mr. Wells further states (quoting the census of 1870) that, "while the gain in the population in the United States from 1860 to 1870 was less than 23 per cent, the gain in the product of our so-called manufacturing industries during the same period, measured in kind, was 52 per cent, or nearly 30 per cent in excess of the gain in population."

Consulting further, on the subject of "displacement," Mr. Carroll D. Wright's admirable report (1877) on the statistics of Massachusetts, we are told that, by the mere *improvements* in machinery since 1845, the productive power of the shoemaker has been trebled, while in 10 years the productive power of the woolen manufacturer has been nearly doubled. According to Mr. Wright the total of steam and water power employed in Massachusetts in driving machinery is equivalent to the hand labor of 1,912,488 persons—the actual hand-labor in use being 266,339 persons in 1875. Here we have an admitted displacement of more than 1,600,000 persons; each hand-laborer having his powers multiplied by 6, through the agency of steam and water (and machinery). But, says Mr. Wright, "the industries of Massachusetts, without the aid of her motive power, would require a population of 7,400,000, or nearly $4\frac{1}{2}$ times as great as it is now, to furnish the hand-labor necessary to carry them on." The ratio, however, according to this authority, differs in the following industries as given: In paper-making, each operative (plus machinery) represents the hand-labor of 18 persons. In the textile manufactures, the relation is 1 to 9. Each lumber-maker represents the power of 50 men. The statement as to the woolen manufacture would be incredible coming from any less authoritative source; *283 operatives in 1875, added to the number employed in this industry in 1865, produced very nearly double the quantity of cloth of the former number—a relation of 1 to 70 persons as regards displacement.* In 1810 the entire manufacture of carpets in the United States amounted to only 10,000 yards. In 1870 there were 689 carpet manufactories in the United States, employing 13,000 persons, at an average wage of \$361 per annum, and producing carpets to the value of \$22,000,000 annually. The rate of displacement in carpet manufacture through the use of the power-loom is as 1 to 3 in 2-ply ingrain carpets, and 1 to 9 in tapestry and Jacquard Brussels—this ratio being in regard to the number of yards produced, in comparison with the rate of production by the hand-loom. That is to say, 13,000 persons with power now manufacture what it would require 117,000 to make with the hand-loom.

Says Benson J. Lossing—a close and accurate compiler, and careful observer as well: "Extravagance in dress has become more marked since the civil war than at any time in the history of our country. It is not so much extravagance in taste as extravagance in cost. A fashionable woman now expects 4 or 5 new bonnets each year, costing \$25 to \$50 each; and some on which rich and rare laces are used may cost \$200. Forty to one hundred and fifty dollars are now charged, sometimes, for the making and trimming of a single dress, in addition to the cost of the body material. Only by the use of the wonderful sewing-machine, that does the work of scores of nimble fingers in the same time, could the needle-work on the dresses of women now, even the plainest that are in fashion, be performed." The number of sewing-machines manufactured in the United States in 1874 was 528,503; in the four years preceding the centennial exhibition, the sales of this article averaged half a million a year. The entire sales of the American sewing-machine during the last 25 years are estimated to have numbered as many as ten million machines. The number of patents granted in the United States on sewing-machines and parts of machines since 1843 exceeds 1000, while there are more than 40 separate parts of the article, each of which has been the subject of a patent. The use of the sewing-machine, when compared with hand-sewing, is probably in the relation of 1 to 6; a displacement of the work of 5 persons for every machine used. The relation of machinery in the manufacture of watches to hand-labor is as 1 to $3\frac{1}{2}$. Mr. Edward Atkinson mentions that a factory that uses 2,400 bales of cotton in a year, employs 300 to 500 working-men in the field; whereas in the mill it only employs 100 men, women, and children.

In 1856, M. Leplay, writing on the subject of labor in France, characterized the condition of things in a certain district by stating that the position of its manufactures—"ruined by machinery, had driven the working-people of the district to subsist on public charity. In witnessing the marvels of industry produced at the cost of so much suffering," the author demands "*Whether progress thus realized be not actually decay?*" The following pertinent remarks on this subject occur in an address of hon. Hugh McCulloch, July 4, 1878, at Woodstock, Conn.: "Idleness, especially enforced idleness, brews mischief and is dangerous to the state. Honest employment promotes virtue; idleness vice. Manual labor is reputable, although in no country is it properly respected. Laboring-men, as a class, are honest men. . . . It is work that so many idle men—idle not through their own fault, but idle by the substitution of machinery for hands—are begging for, that families are starving for. . . . It is not strange, therefore, that the laboring-man looks upon labor-saving machinery and implements as his enemies; and it is by no means certain that they are not. Looking at the labor question as humanitarians regard it, it is, indeed, questionable if labor-saving machinery is not working against the security of society and the welfare of the race. Political economists do not take this view of it. They care nothing for instrumentalities. They

look only to results, and to results in a particular direction—the increase of the national wealth—as if the greatness of a nation consisted of its wealth alone, and not in the character and condition of its people.”

We recur to the propositions of the friends of machinery. 4th. “It enables the prosecuting of vast enterprises, involving only the concentration of capital.” This, as a simple statement of fact, is not disputed. The construction and consolidation of railroads; the foundation of vast manufacturing industries; the supplying of enormously increasing populations (to a certain extent) with the necessities of life; and the providing of a smaller and more fortunate number with its luxuries,—these are demonstrable incidents which may be fairly included among the uses of machinery. But other questions occur; and when the investigator is met by the assertion that only 2 per cent of the business houses of the United States avoid bankruptcy; when it is known that nearly all the older railroads in the country have been at one time or another in the hands of receivers; when factories are periodically shut down, operatives on strike, and blast furnaces out,—it becomes, in the minds of a certain class of investigators, a question whether this consolidation and concentration of capital be not in itself a force reacting to the injury and loss of the very capital thus forced to unnatural uses. The employment of machinery in farm labor has greatly grown during the decade between 1870 and 1880. Comparison in this respect, made prior to 1870, shows some remarkable facts. In 1860 the amount of product (less material) from the capital invested in the manufacturing industries of the country, including mining and fishing, was \$854,256,584, being 15½ per cent less than the capital itself—\$1,009,855,715. In 1870 the amount of capital employed had more than doubled (being \$2,348,063,198), while the number of hands employed had increased 56 per cent. Yet the ratio of product to capital in this latter year had fallen 4 per cent, the product, \$1,891,575,749, being 19¼ per cent less than the capital. This is certainly a remarkable change in relation, when it is considered that the number of establishments, also, had increased 80 per cent—*a direct and tremendous increase in machinery*. Again, the amount of capital invested in machinery and buildings for manufactures being, as above stated, \$2,348,063,198 in 1870: that invested in farming implements and machinery was \$336,878,429. The product on the investment in manufactures (less the material used) was \$1,891,675,749: that of agriculture was \$2,447,538,658. The average product of each farm laborer was \$850. The average product of each operative in the manufactures, backed by a capital invested in machinery six times as great as that similarly employed in farming, was \$848. Deducting wages and interest on capital in each of these instances:

Manufacturing, share of wages.....	\$377
“ “ “ interest.....	73—450
Farming, share of wages.....	300
“ “ “ interest.....	8—308

—we have a return to the manufacturer of \$398 per operative, and to the farmer of \$542. But whereas in the one case there is no important diminution of this net product, in the other we have the enormous expenditures for repairing and sustaining the vast organism of machinery involved, and the very large sums annually expended in improved machinery in order to sustain the competition which is a part of the very essence of mechanism. By this time the net return of the capitalist who has invested his money in manufacturing is reduced by a still further percentage below that of the farmer, who also has employed machinery, but has not so abused its use. But giving no consideration to these elements, there is still a difference in the net product per capita employed, as between the farmer and the manufacturer, of more than *one-third in favor of the farmer*.

Still another comparison to display the relation of profits with and without the over-use of machinery. The number of mining hands employed in the United States in 1870 was 154,328, their product \$152,598,994, or \$988 per capita. Making the same deduction of wages and interest on capital made in relation to agriculture and manufacturing, we have as a result a net annual return per capita of \$471, an increase on that of the manufacturer of 10 per cent, *although the miner receives an average of \$483 wages to the \$377 of the manufacturing operative*.

Now, as precluding the claim that it is *over-use* of machinery which produces these curious results, it is only necessary to refer to the U. S. census for 1860 and 1870 to establish the following facts. (It is very likely to be generally assumed by the uninitiated that there was no such tremendous addition between 1860 and 1870 to the quantity of machinery previously existing in the country—as the tenor of this paper would seem to indicate. The facts and figures of the construction of machinery during the decade under consideration very clearly demonstrate the inaccuracy of any such assumption.)

In 1860 the amount of capital invested in the manufacture of machinery was.....	\$35,959,068
In 1870 it was.....	101,183,597
The number of hands employed in 1860 was.....	41,172
In 1870.....	83,514

The wages paid in 1860.....	16,155,416
In 1870.....	47,866,882
Cost of material in 1860.....	21,405,673
In 1870.....	60,423,643
Number of establishments in 1860.....	1,383
In 1870.....	2,897
Gross product in 1860.....	51,887,266
In 1870.....	138,519,246

Thus it appears that the capital employed, the wages paid, and the material used in manufacturing machinery, had grown in 1870 to three times the amount of these in 1860; while the gross product on this investment had increased two and seven-tenths times during the same decade. *We had 170 per cent more machinery in the country in 1870 than we had in 1860.*

But now uprise some marvelous phenomena, by which it might be fairly reasoned that the lesson of 1870 should have closed every machine-shop in the land—in the interest of capital. There was a falling off in the gross product in this business, of 30 per cent; and in the average net product per capita of each of the hands employed, from \$286.80 to \$277.14 per annum. Meanwhile the average of wages had increased from \$392.38 in 1860 to \$573.16 in 1870. So that the operative returned to the capitalist in 1860 37 per cent less than his wages, and in 1870 less than half his wages. Here may properly be quoted the following statement recently made by Mr. Edward Atkinson: "It is in a quick distribution and ample consumption of products, rather than in the amount of accumulated capital, that the welfare of a community lies." The fact that there may exist and seemingly thrive large business operations involving the employment of great numbers of human beings, hundreds of thousands of horse-power in steam or water, and tremendous capital, proves nothing, either in favor of hiving the human race, concentrating the natural forces, or limiting the movement of the circulating medium. Any large undertaking, once established, will run itself on its own momentum for a long period of time, without the slightest apparent regard for economic laws or scientific methods, and yet may fail at last. In such cases the capitalist, instead of living and saving from the profits of his business, exists merely on the usance of the large sums of money which pass through his hands—all this ending with failures, dishonesty, and general financial disaster.

"5th. It increases the capacity for foreign trade:" this statement is generally answered as already given in quotations from Carlyle and Edward Atkinson, and with the counter-statement that the increase of foreign trade which is fostered at the expense of home consumption cannot be healthy. The fact that American prints are sold on the market at Manchester, Eng., for 6d. per yard, while the same goods are gathering dust on the shelves and counters of stores in the place of their production, for lack of purchasing power in the American people to exhaust the supply, can hardly be esteemed an illustration of good political economy. "6th. It favors the laborer by procuring for him higher wages with greater purchasing power." While even this statement may be accepted as it stands, it is with a proviso that annihilates its value as an adjunct to the argument. And this because of the claim which is set forth and diligently sustained by the antagonists of too much machinery, viz., that the result of machine labor, the quality and character of its product, are so inferior that a great increase of expenditure is required in the direction of manufactured goods, to supply the same necessities which would be fully satisfied by the product of hand labor at a greatly lessened cost; thus rendering nugatory all possible advantage of increased wages (in certain directions), with increased purchasing power. When to this is added the fact of displacement through the concentration of wages in a few hands, it is claimed that the proposition is practically confuted. Says Charles Eastlake in his *Hints on Household Taste*: "But it is to be feared that instead of progressing we have, for some ages, at least, gone hopelessly backward in the arts of manufacture. And this is true, not only with respect to the character of design, but often in regard to the actual quality of the material employed. It is generally admitted by every housewife who has attained a matronly age, that linen, silk, and other articles of textile fabric, though less expensive than formerly, are far inferior to what was made in the days of our grandfathers. Metal-workers tell us that it is almost impossible to procure for the purpose of their trade, brass such as appears to have been in use a century ago. Joinery is neither as sound nor as artistic as it was in the early Georgian era. A cheap and easy method of workmanship, an endeavor to make a show of finish with the least possible labor, and, above all, an unhealthy spirit of competition in regard to price, such as was unknown to previous generations, have combined to deteriorate the value of our ordinary mechanical work." Mr. G. Phillips Bevan, in his admirable *Industrial Classes and Industrial Statistics*, article, "Paper," says: "The making of paper by hand is but seldom practiced now in this country (England), except by a few makers who have a specialty for best writing and drawing paper, the hand-made in these cases being considered superior to the machine-made" (p. 198). Mr. G. W. Smalley, the London correspondent of the *New York Tribune*, in a letter to that journal dated "London, Feb. 25, 1878," on book-binding at the Paris exposition, writes: "Machinery is largely employed, and the use of machinery is fatal. Commercially, perhaps, it is

indispensable, but it is none the less destructive to artistic excellence in binding, as in most other things in which art has any share." Again, Mr. Bevan: "For many years the textile industry was carried on in the rural districts only. The power used was water. Water on the hill-sides was irregular in its flow; work was therefore irregular. When the stream was full, work was brisk (we should have called it excessive); when it was dry, the factory hands were employed on the lands, in hay-making, or other like operations. Thus the operatives were farm laborers as well as factory workers, and as manufacturing was not the complicated affair it is now, they were free from many of the evils which afterwards arose from the introduction of steam, and the immense enterprise and energy of our manufacturers." Speaking of the cotton-dust in the mills, he says: "The operatives showed the effect of this dust in their pale, emaciated faces, and in the bronchial irritation from which they constantly suffered, causing cough, anæmia, debility, diarrhea, and other formidable symptoms of pulmonary mischief, including expectoration, in which the cotton fiber was plainly visible by the microscope." "The physical strength suffers much in factories from confined heated atmosphere, loaded with fine cotton fibers, flinty sand, and cutaneous exhalations; the number of gas-lights, each light destroying oxygen equal to one man; transitions from the mills and their irregular temperature to their own dwellings; diet and drinks adapted to a heated employment, and stimulants to soothe an excited, nervous tension; vision always on the move; perception and volition, from the nature of their work; always in action. . . . No doubt factory physique is not good, but it is made worse by factory associates of vice and iniquity." Mr. Bevan adds that a series of questions addressed in 1873 to the certifying surgeons proved beyond doubt the fact of the degeneracy of the factory population.

The conclusion of the opponents of what they deem to be the abnormal employment of mechanism in manufactures may be set forth in the following authoritative statement: The superintendent of the census estimates the loss to the gross product of the wealth of the country to be \$604.89 per capita of those not counted as producing (see p. 376 *Ninth Census*, vol. 3). This sum includes wages, and therefore the producing power per capita. The displacement of 3,000,000 of laboring-men by the over-use of machinery would therefore mean a loss to the annual product of the country of more than \$1,800,000,000. When there is added to this sum the cost of supporting these 3,000,000 of idle men—say at 25 cents per day per head—we have a trifle over \$2,000,000,000 per annum as the amount to be placed to the debit of the country, being, in fact, as much as the entire capital invested in the manufacturing industries of the United States. Against this it is set forth that no evidence has ever shown that there were 3,000,000 unemployed laboring-men at any one time in the United States. Admitting this, the computation as to the amount of existing idleness is open to any one, whenever it may seem desirable to make it. Those rejecting the figures afforded by the leading American journals, hereinbefore quoted, can easily obtain such data as may be procurable and establish results that will satisfy them. The application to these, whatever they may be, of the per capita loss in such a case as estimated by the superintendent of the census of 1870, will be found to be of value. It is evident that this important subject covers an immense field, and embraces a complexity of elements, physical, intellectual, social, and moral. To its solution all these departments must contribute.

MACHRAY, ROBERT, D.D., LL.D., b. England, 1830; graduated at Sidney-Sussex college, Cambridge, 1855; became dean and fellow of his college; vicar of Madingley, near Cambridge, which he resigned in 1865 to enter upon the bishopric of Rupert's Land, to which he had been appointed.

MCILVAINE, CHARLES PETTIT, D.D., LL.D., D.C.L., 1798-1873; b. N. J.; son of Joseph, who was U. S. senator from New Jersey; graduated at Princeton, 1816; ordained in the Protestant Episcopal church, 1820, and officiated at Georgetown, D. C.; chaplain to the military academy at West Point and professor of ethics and history, 1825-27; rector of St. Anne's church, Brooklyn, N. Y., 1827-32, and, in 1831, professor of the evidences of revealed religion in the university of the city of New York; in 1832 consecrated bishop of the diocese of Ohio, in connection with which he was also president of Kenyon college at Gambier, 1832-40, and afterwards of the theological seminary there. Among his published writings are *Lectures on the Evidences of Christianity*, 1832, and in many subsequent editions; *Oxford Divinity*; *The Holy Catholic Church*; *The Truth and the Life*; *Valedictory Offering*; *Family and Parish Sermons*; and contributions to many religious periodicals. His name is held in honor, without as well as within his own denomination, for Christian fervor as a preacher and writer, and for his combined gentleness and strength of spirit.

MCILVAINE, JOSHUA HALL, D.D., b. Del., 1815; of Irish Presbyterian descent; graduated at the college of New Jersey, 1837; studied theology at Princeton theological seminary until 1840; pastor at Little Falls, N. Y., 1841-43; of the Westminster church, Utica, N. Y., 1844-48, during which time published *The Tree of the Knowledge of Good and Evil*; of the First Presbyterian church, Rochester, N. Y., 1848-60, towards the close of which years, delivered a course of lectures in the Smithsonian institution at Washington, D. C., on "comparative philology in relation to ethnology;" professor of belles-lettres in the college of New Jersey, 1860-70, in the last of which years published

a work on elocution; since 1870 has been pastor of the High Street Presbyterian church, Newark, N. J. While performing the stated duties of these various positions, Dr. McIlvaine has also been a frequent contributor to the *Princeton Review* and the *Bibliotheca Sacra*. He is a brilliant and original thinker, having a forcible and graceful style, and is enriched with a wide range of learning.

McINTOSH, a co. in s.e. Georgia, on the Atlantic ocean, and having the Altamaha river on the s.w.; traversed by the Atlantic and Gulf railroad, and watered by the Sapelo river and Jones's and Doctor's creeks; 550 sq.m.; pop. '80, 6,241. It has a generally level surface and fertile soil; the productions are rice, Indian corn, sweet potatoes, and cane molasses; there is a large lumber interest. Co. seat, Darien.

McINTOSH, JOHN, 1745-1826; b. Ga.; an officer in the war of the revolution with the rank of col., and a maj.gen. of the Georgia militia in the last war with England, 1814-15. After the revolutionary war was over he settled in Florida, then in possession of the Spaniards, was seized by them on the supposition that he had designs against the Spanish government, and imprisoned a year in Moro castle at Havana. On his return he conducted a reprisal against a Spanish fort on the St. John's, opposite Jacksonville.

McINTOSH, JOHN B., b. Fla., 1838; a cavalry officer in the U. S. army in 1861, and actively engaged in the service in the campaigns in Virginia, Maryland, and Pennsylvania from 1862 to 1865. He was promoted to brig.gen., July 21, 1864, and brevet maj.gen. in 1865. At the battle of Opequan he lost a leg. In 1866 he was made lieut. col. of the 46th infantry. He retired from the service July 30, 1870, with the rank of brig.gen.

McINTOSH, LACHLAN, 1727-1806; b. Scotland; a son of John More McIntosh, who came to Georgia with Oglethorpe in 1736. Lachlan entered the mercantile house of Henry Laurens at Charleston, but was afterwards a land surveyor. At the beginning of the revolutionary war he was col. of a Georgia regiment, and in 1776 was made a brig.gen. In 1778 he led an expedition against the western Indians, was present at the siege of Savannah the next year, and was taken prisoner at the capture of Charleston in 1780. After the war he was a member of congress.

McINTOSH, MARIA J., b. Ga., 1803; removed to New York in 1835, and in 1841 published her first work, *Blind Alice*. Of her numerous works we may mention: *The Lofly and the Lowly*, 1853; *Meta Gray*, 1858; and *Two Pictures*, 1863.

McINTOSH, WILLIAM, 1775-1825; b. Ga.; a half-breed, who led the Creek Indians who adhered to the United States in the war of 1812. On account of his share in the treaty of Indian Springs, made in 1825, which granted to the United States large portions of the Indian lands, he incurred the hostility of many members of the Creek tribe, to which his mother had belonged, and was murdered by some of them at his own house.

McINTOSH, WILLIAM, 1796-1858; b. Ga.; an Indian of the Cherokee tribe, who became a Methodist preacher and missionary in Arkansas and the Indian reservation.

MACKAR'NESS, JOHN FIELDER, D.D., b. 1820; studied at Mereton college, England; fellow of Exeter college, Oxford; vicar of Tardebigge, Worcestershire, 1845-53, rector of Honiton, Devonshire, 1855-58; prebendary of Exeter, 1858; proctor in convocation for the clergy of the diocese of Exeter, 1865; advocated the disestablishment of the Irish church; was made bishop of Oxford, 1869. His brother, George Richard Mackarness, D.D., having been vicar of Ilam, Staffordshire, became bishop of Argyll and the Isles, 1874.

MACKAY, CHARLES, an English author, b. in Perth in 1812; educated in London and Brussels. From the age of 22 to 32 he was engaged on the London *Morning Chronicle*; then for three years editor of the Glasgow *Argus*. He lectured in the United States in 1858; established the London *Review* in 1860; was correspondent of the London *Times* from the United States during the great rebellion. He has subsequently resided in London. Mr. Mackay's prose style is remarkably terse and clear, abounding in poetical forms of expression. He published volumes of poems in 1834 and 1840; *Memoirs of Popular Delusions*, 3 vols., 1841; the *Salamandrine*, a poem, 1842; *Legends of the Islands and Other Poems*, 1845; *The Scenery and Poetry of the English Lakes*, and *Voices from the Crowd*, 1846; *Voices from the Mountains*, 1847; *Town Lyrics* and *The Battle*, poems, 1848; and a considerable number in volumes published since. *Lost Beauties and Perishing Graces of the English Language*, 1874, is one of his latest works.

McKAY, DONALD, b. Shelburne, Nova Scotia 1809; learned the trade of ship-builder in New York; went into the business in Newburyport, Mass.; and in 1845 established a shipyard at East Boston that became famous for the splendid improvements introduced in the models of clipper ships of great size, built for the California and Australia trade. In 1853 he produced the ship *Great Republic* of 4,500 tons burden, which, for a time, was the largest in the world.

McKEAN, a n.w. co. of Pennsylvania, on the border of New York, traversed by the Philadelphia and Erie, and Buffalo, Bradford and Pittsburg railroads; 1000 sq.m.; pop. '70, 8,825. It is a mountainous region, containing coal and iron, and heavily

timbered. The inhabitants are occupied in lumbering and dairying. Co. seat, Smethport.

MACKEAN, THOMAS, LL.D., 1734-1817; b. Penn.; called to the bar in 1757, and a member of the state assembly, 1762-79. In 1765 he was a member of the committee appointed by the congress of the colonies held at New York to draw up an address to the house of commons. From 1774 to 1783 he was a member of the continental congress, and in 1781 its president. From 1777 to 1799 he was chief-justice of the Pennsylvania supreme court, resigning his place to become governor of the state, which office he retained till 1808. He was the author of the state constitution of Delaware.

McKEESPORT, a borough of Alleghany co., Penn., on the Pittsburg, Washington and Baltimore railroad, 14 m. from Pittsburg, at the junction of the Youghiogheny river with the Monongahela; pop. 2,523. It is the center of an extensive coal-mining region; has 7 churches, good schools, 2 banks, 1 newspaper, 2 foundries, and manufacturing of locomotives, railroad cars, lap-welded iron tubes, window-glass, lumber, etc.

McKEEVER, ISAAC, 1793-1856; b. Penn.; entered the navy in 1809, and in 1814 was in command of an American gunboat which was captured, after a severe struggle, by a British force in barges and boats upon lake Borgne, Louisiana. The American fleet consisted of 5 gunboats with 182 men, and the English force numbered more than a thousand. McKeever afterward rose to be commander and capt. and he was in command of the Brazilian squadron, 1851-54.

MACKEL/LAR, THOMAS, b. N. Y., 1812; early a proof-reader for the Harpers, and subsequently foreman and proprietor of a large stereotype foundry in Philadelphia. He is the author of 3 volumes of verse: *Droppings from the Heart*; *Tam's Fortnight Ramble*; and *Lines for the Gentle and Loving*.

McKEN'DREE, WILLIAM, D.D., 1757-1835; b. King William co., Va.; was adjutant and commissary in Washington's army for several years, and was present at the surrender of Cornwallis at Yorktown in 1781; in 1788 joined the itinerant Methodist ministry; accompanied Asbury in his tour of South Carolina; in 1801 was sent by the bishops to preside over the Kentucky district, and to have the general supervision of the western conference, embracing Ohio, Kentucky, Tennessee, Virginia, and part of Illinois. He traveled extensively and preached with great eloquence and power. In 1808 he was made bishop. In 1809 he visited with Asbury a large part of the west and Canada. He preached nearly 50 years, 12 years he was presiding elder, and 27 years a bishop. He was a man of vigorous mind, great modesty, and devoted piety, and was honored by every class of society.

MACKENZIE, Sir ALEXANDER, 1755-1820; b. Scotland; emigrated to Canada, and was employed by the Northwestern fur company. In 1789 he set out on an exploring expedition from lake Athabasca, and followed to its mouth the river which has since been named after him. In 1792 he started on another expedition; this time towards the Pacific, to which he came in 1793. An account of both these expeditions is to be found in his *Voyages*, etc., 1801. He was knighted in 1802.

MACKENZIE, ALEXANDER SLIDELL, 1803-48; b. New York. His family name was Slidell; he entered the U. S. navy in 1815; became lieut. in 1825, commander in 1841; served in the West Indian, Brazilian, Pacific, and Mediterranean squadrons. He changed his name to Mackenzie in 1837 in honor of a maternal uncle. Capt. Mackenzie became celebrated in 1842 by an event on board his ship that for a time produced great excitement in the United States. While in command of the brig *Somers*, which had been manned chiefly by naval apprentices from the U. S. naval academy and school-ships, on its return voyage from the coast of Africa a serious mutiny was discovered among them. Its ringleader was a son of John C. Spencer, the secretary of war. After a trial he and two others were hung from the yard arm. Young Spencer had been a dangerous character from his boyhood, but was so well connected that the action of capt. Mackenzie was severely criticised as hasty and cowardly. But a court of inquiry fully sustained his action, and revealed a skillful plot of the youths to turn the brig into a piratical craft as soon as they should achieve their object. Capt. Mackenzie was ordnance officer in the Mexican war, and participated in the storming of Tobasco in June, 1847. He possessed decided literary ability as the following works will show: *A Year in Spain*, 1829-36; *Popular Essays on Naval Subjects*, 1833; *The American in England*, 1835; *Spain Revisited*, 1836; *Life of John Paul Jones*, 1841; *Life of Oliver Hazard Perry*, 1841; and *Life of Stephen Decatur*, 1846.

MACKENZIE, CHARLES FREDERICK, D.D., 1825-62, b; Scotland; took his first degree at the university of Cambridge in 1848, and became a clergyman in the church of England; after some service as a parish minister, obtained a fellowship at Cambridge and lectured there; 1854-59 was archdeacon at Natal, South Africa, under bishop Colenso; having returned to England to promote the extension of missions in Africa, he was appointed bishop of Central Africa, and was consecrated at Cape Town, Jan. 1, 1861; went to the Zambesi river with a company of missionaries and began his work at Magomero, but soon fell a victim to the climate, so fatal to Europeans.

MACKENZIE, ROBERT SHELTON, LL.D., D.C.L., b. Ireland, 1809; educated at Fermoy, where he taught school after having studied medicine at Cork. In 1829 he edited an English country paper. The next year he went to London, where he was engaged in literary and journalistic work for 22 years. He had already contributed to a number of American periodicals, and had been, since 1834, the regular London correspondent of the *New York Star*. He came to New York in 1852, and wrote for various papers there till 1857, when he became the literary editor of the *Philadelphia Press*, so continuing till 1879, when he assumed a similar position on the *Philadelphia Evening News*. He has published among other works, *Lays of Palestine*, 1829; an edition of the *Noctes Ambrosianæ*, 1854; *Bits of Blarney*, 1855; *Life of Charles Dickens*, 1870; and *Sir Walter Scott*, 1871.

MACKENZIE, RONALD S., b. New York, 1840; graduated at West Point in 1862, and appointed second lieut. of engineers; was engineer of the 9th corps in the second battle of Bull Run, where he was wounded, and of Sumner's division at Fredericksburg; engaged at Chancellorsville in laying bridges in advance of the army; followed the confederate forces through Maryland into Pennsylvania, took part in the battle of Gettysburg, and in following Lee after his retreat; was in the battles of the Wilderness; wounded before Petersburg in June, 1864; commanded a regiment during Early's attack on Washington, and a brigade in the battles of Opequan, Fisher's Hill, and Cedar Creek, where he was again wounded; was appointed brig.gen. of volunteers, and resumed command before Petersburg in Nov., 1864; commanded a division of cavalry at Five Forks, where he rendered important service, being brevetted maj.gen. for gallantry. At the close of the war he returned to duty with his corps, with the rank of capt., and in 1867 was appointed col. of infantry; but in 1870 was again transferred to the cavalry service, and assigned to duty on the Mexican frontier.

MACKENZIE, WILLIAM LYON, 1795-1861; b. in Scotland; emigrated to Canada in 1820, and was employed first on the works of the Lachine canal. In 1824 he became editor of the *Colonial Advocate*, a journal published at Niagara in opposition to the governing party. He was elected in 1828 to the provincial parliament, but was refused his seat on the ground of disloyalty to the crown. He was re-elected four successive times, until the government refused to issue another writ of election. In 1833 he appealed to the home government in England for redress of grievances, carrying with him the petitions of the Canadian reform party. He was first mayor of Toronto in 1836. In 1837, he headed an armed force in Toronto and demanded of governor Head that a convention should be called to discuss Canadian grievances and reforms, which was not acceded to. He resolved to open the revolution by seizing arms with a view to arrest the governor and his cabinet, and to declare Canada a republic. But his force was insufficient. The government troops drove him from Montgomery hill, near the city, Dec. 7, 1837, and after some skirmishing forced him to retire to Navy Island, in the Niagara river. From this safe retreat, within the limits of the United States, he issued a proclamation for volunteers, offering lands—to the value of \$100 to \$300—in Canada, when the revolution should be successful. Some American sympathizers joined him, and a larger number of Irish. The Canadian government outlawed him, and the U. S. government took steps to stop his violation of American soil for war on Canada. He was arrested by gen. Scott's order and sentenced to 12 months' confinement in the Rochester jail. When again at liberty he became a contributor to the *New York Tribune*, and his vigorous pen was always interesting if not instructive. In 1849 the Canadian government published a general amnesty. Mackenzie at once returned to Canada, was elected to parliament, where he made a useful member, and on his retirement from that body, until his death, published a weekly journal entitled *Mackenzie's Message*.

MACKEY, ALBERT GALLATIN, 1807; b. Charleston, S. C., where he was educated for the practice of medicine, but relinquished it for literature, especially pertaining to freemasonry. In 1850 he established a masonic monthly magazine in Charleston, and in 1858 a quarterly in the same interest. His works devoted to this order are: *Lexicon of Freemasonry*; *The Mystic Tie*; *Principles of Masonic Law*; *The Book of the Chapter*; *Text-book of Masonic Jurisprudence*; *Cryptic Masonry and Masonic Ritualist*; *The Symbols of Freemasonry and Manual of the Lodge*; and *Book of Constitutions of the Grand Lodge of Ancient Freemasons of South Carolina*. An enlarged edition of the *Lexicon* appeared in 1875 under the title of the *Encyclopædia of Freemasonry*.

MACK'IE, JOHN MILTON, 1813; b. Wareham, Mass.; a graduate of Brown university, and author of *Life of Godfrey William von Liebnitz*; *Life of Samuel Gorton*; *Cosas de España*; *Life of Schamyl, the Circassian Chief*; *Life of Tai-Ping-Wang, Chief of the Chinese Insurrection*; *From Cape Cod to Dixie*; and numerous contributions to the *North American Review*.

McKIM, JAMES MILLER, 1810-74; b. Carlisle, Penn.; graduated at Dickinson college, and entered the ministry of the Presbyterian church. Soon after the organization of the American antislavery movement, he left the pulpit to devote himself to the cause of emancipation, which he served with marked ability and soundness of judgment until near the close of the war of the rebellion. As lecturer, organizer, corresponding secretary of the Pennsylvania antislavery society, and editor at times of the *Pennsylvania*

Freeman, his labors were of great value. Near the close of the war of the rebellion, when the emancipation of the slaves had been proclaimed by president Lincoln, he resigned his office in the antislavery society to devote himself to the work of the Freedmen's aid commission. His earnest devotion, united with his soundness of judgment, clear moral insight, and wide experience, qualified him for eminent service in the work of the new society. He was one of the founders of *The Nation* newspaper. Died in Llewellyn Park, Orange, N. J.

MACKINAW, a co. in Michigan, on the s. part of the n. peninsula; 1100 sq.m.; pop. '80, 2,902. It comprehends a number of islands, besides the mainland, the entire region being rough and uncultivated, and heavily wooded. The principal industry is lumbering. Co. seat, Mackinaw.

MACKINAW (*ante*), capital of Mackinaw co., Michigan; present pop. about 1500. The island is 3 m. in its longest diameter, and is n.e. of the strait of the same name. Many of the inhabitants are of French descent, as the place was early occupied by the French, and a missionary station established in 1699. The inhabitants were massacred by the Indians under Pontiac, the Ottawa chief, at the time of his attack on Detroit, 1763. The harbor is deep and safe, though small. The fish industry is very large and the village is a pleasant resort for summer tourists.

McKINSTRY, JAMES P., 1809-73; b. N. Y.; entered the navy in 1826, was made lieut. in 1837, commander in 1855, and capt. in 1862. He was in command of the *Monongahela* at Port Hudson in 1863, and received severe injuries. He was appointed a commodore in 1866.

MACKLIN, CHARLES, 1690-1797; b. Ireland; changed his name from McLaughlin to the one under which he is generally known. After a rather reckless and wandering youth, during which period he was for a time identified with a dramatic company in the capacity of harlequin, he appeared at the Lincoln's Inn theater, London, in a small part, and from that time seems to have continued in the theatrical profession. In 1735 he was embroiled with a brother actor, and becoming the accidental cause of his death, was tried for manslaughter and convicted. Six years later, however, he was at Drury Lane theater, where he made a successful appearance in the character of Shylock, occasioning Alexander Pope to write concerning his performance,

This is the Jew
That Shakespeare drew.

In 1753 he left the stage, and kept a tavern, varying this occupation by lecturing on oratory in Covent garden, in which vocation he was not successful. He returned to the stage in 1758, and continued to act until he had reached his century, when his strength failed him, and he made his final retirement. His powers of facial expression were so comprehensive, and his features so marked that Quin said of him, "If God writes a legible hand, that fellow's a villain." He wrote 10 plays, of which but two have remained to us, *Love à la Mode*, and *The Man of the World*; the latter of these pieces was revived, and produced at Wallack's theater, New York, a few years since.

MACK VON LEIBERICH, KARL, Baron de, 1752-1828; an Austrian noted for his skill in the seven years' war against the Turks. He directed the allied armies against the forces of the first French republic and was noted for the excellence of his plans more than for their successful execution. He was utterly beaten in Italy by the French in 1798 and made prisoner; escaped and was in command of Austrian armies in Tyrol, Dalmatia, and Italy in 1804. In Oct., 1805, while in command of troops in Ulm he was compelled to surrender his entire force to the French under Napoleon. An Austrian court-martial condemned him to death; the government commuted the sentence to imprisonment for life, and in 1819 pardoned him out. He died near Vienna.

McLANE, ALLEN, 1746-1829; entered the American army as a volunteer in 1775, and served through the revolutionary war. He was a lieut. under Cæsar Rodney of Delaware, where he had settled just before the revolution. He distinguished himself at Long Island and White Plains, participated in the campaign in New Jersey, and was promoted to a captaincy in 1777. He next commanded the American outposts about Philadelphia, and was present at the battle of Monmouth, June 28, 1778. The next year he was a maj. in gen. Henry Lee's "legion," assisted in surprising the garrison of Paulus Hook, and was with Wayne at the capture of Stony Point, the same month. He was with the American army before Yorktown, till Cornwallis surrendered; but the close of the war found him comparatively poor, as he had sacrificed to the cause of the colonies a valuable estate near Philadelphia. After the close of the war he held a number of important civil offices; he was chosen a member, and afterwards speaker, of the Delaware legislature; a justice of the court of common pleas, and from 1808 till his death, collector of Wilmington.

McLANE, LOUIS, 1786-1857; b. Del.; at first entered the navy, but was afterwards called to the bar. He was a member of congress 1817-27, and was then chosen senator. From 1829 to 1831 he was minister to England, and on his return took a place in Jackson's cabinet as secretary of the treasury; but in 1833, having refused to give his consent to the removal of the government deposits from the U. S. bank, he was transferred by

Jackson to the department of state. He retired from public life in 1834, and was made president of the Baltimore and Ohio railroad in 1837. In 1845 he was sent to London to take charge of the Oregon negotiations, and resigned on their conclusion.

McLANE, ROBERT MILLIGAN, b. Del., 1815; educated at Washington college and St. Mary's college, and at West Point. He was in the army from 1837 to 1843, when he resigned and was admitted to the bar. He was a member of the Maryland legislature 1845-47, and in the latter year was elected to congress, where he served two terms. President Pierce appointed him minister to China in 1853, and he remained there two years. He was U.S. minister to Mexico from Mar., 1859, to Nov., 1860, and has since practiced law in Baltimore.

MACLAY, ARCHIBALD, D.D., 1778-1860; b. at Killearn, Scotiand; became a minister of the national kirk in 1802. He came to New York in 1805, and was pastor of a Presbyterian church in Rose street, but in 1808 he became a Baptist and founded a church in Mulberry street (since removed to Second avenue and called the Tabernacle), of which he was the pastor until 1837, when he became the agent of the American and foreign Bible society, which he served until 1850, and then became president of the American Bible union.

McLEAN, a co. in central Illinois, watered by affluents of the Illinois river; intersected by the Illinois Central, Toledo, Peoria and Warsaw, Chicago and Alton, and Indianapolis, Bloomington and Western railroads; 1132 sq.m.; pop. '80, 60,115. The surface is generally prairie land, and the soil fertile; the productions are Indian corn, wheat, rye, oats, barley, potatoes, wool, hay, and butter. There are a large number of manufactories, including carriages, agricultural implements, cars, machinery, iron castings, saddlery and harness, etc. Co. seat, Bloomington.

McLEAN, a co. in n.w. Kentucky, watered by the Green river, and intersected by the Owensboro and Nashville railroad; 320 sq.m.; pop. '80, 9,293. It has a varied surface and fertile soil, and produces freely tobacco, wheat, Indian corn, wool, and butter. This county is heavily timbered. Co. seat, Calhoun.

MACLEAN, JOHN, D.D., b. at Portsey, Banffshire, Scotland, in 1828; studied at the university of Aberdeen; appointed curate at London, Ontario, in 1853; archdeacon of Manitoba, and professor of divinity in St. John's college in 1866, and bishop of the diocese of Saskatchewan in 1873.

MACLEAN, JOHN, LL.D., 1785-1861; b. N. J.; settled in Virginia in 1799. He at first worked on a farm, but in 1803 began to study law in Cincinnati, and was called to the bar. He was a member of Congress from 1813 to 1816, and then was made an associate justice of the Ohio supreme court, which office he retained until 1822, when he accepted from president Monroe the place of land commissioner; and the next year he became postmaster-general. He brought the post-office department to a high degree of efficiency for those times, and in recognition of his services congress raised his annual salary from \$4,000 to \$6,000. In 1829 Jackson, who had previously offered him a place in his cabinet, appointed him an associate justice of the U. S. supreme court. His most famous judicial opinion was delivered in the Dred Scott case, when, dissenting from the chief-justice (Taney) and a majority of the court, he held that slavery exists by force and not as of right, and that its regulation is a matter of local law. From his well-known opposition to the extension of slavery, he was a candidate for the presidential nomination of the free-soil party in the convention at Buffalo in 1848, and for the Republican nomination in 1856 and 1860. His only publications, besides his occasional addresses, are a number of volumes of law reports.

MACLEAN, LETITIA ELIZABETH (LANDON). See LANDON, LETITIA ELIZABETH, *ante*.

McLENNAN, a co. in central Texas, watered by the Brazos river; intersected by the Houston and Texas Central railroad; 960 sq.m.; pop. '80, 26,933. It has an undulating surface, comprising rich bottom lands and rolling prairies, the soil being remarkably fertile. The productions are Indian corn, wheat, oats, sweet potatoes, and cotton. Co. seat, Waco.

McLEOD, a co. in s. central Minnesota, drained by the s. fork of the Crow river, and intersected by the Hastings and Dakotah railroad; 504 sq.m.; pop. '80, 12,343. It has an undulating surface and fertile soil; productions: Indian corn, oats, wheat, barley, potatoes, wool, butter, and hay. Small lakes, prairies, and timber land afford diversity to the character of the surface; valuable timber abounds, including oak, elm, and ash. Co. seat, Glencoe.

McLEOD, ALEXANDER, D.D., 1774-1833; b. in the island of Mull, Scotland; emigrated to the United States in 1792; graduated at Union college in 1798; was ordained and installed pastor of the First Reformed Presbyterian church in New York in 1801, where he remained until his death. He was assistant editor with Dr. John Mason of the *Christian Magazine*. His chief works are: *Negro Slavery Unjustifiable*; *Ecclesiastical Catechism*; *Lectures upon the Principal Prophecies of the Book of Revelation*; *View of the Late War*; *The Life and Power of True Godliness*; *The American Christian Expositor*;

Messiah Governing the Nations. He was prominent in the organization of the American colonization society in 1816, and wrote its constitution.

MACLEOD, HENRY DUNNING, b. Scotland, 1821; educated at Eton and Cambridge, and admitted to the English bar in 1849. He attained considerable distinction as an authority on economic and financial subjects, to which a number of his books are devoted, as: *Theory and Practice of Political Economy; Elements of Political Economy; and A Dictionary of Political Economy.* He has also been active as a law reformer and codifier; many of the changes and improvements in the poor laws of Scotland were originated by him; and between the years 1868 and 1870 he was employed, at the request of the British government, in digesting and codifying the law of bills of exchange.

MCLEOD, XAVIER DONALD, 1821-65; b. New York; son of Alexander; graduated at Columbia college, and admitted to orders in the Protestant Episcopal church in 1845. After preaching for a short time in a country parish, he traveled and studied in Europe. While abroad he became a Roman Catholic, and on his return engaged in literary pursuits. His publications are: *Pynnshurst: his Wanderings and Ways of Thinking; Life of Sir Walter Scott; The Bloodstone; Life of Mary, Queen of Scots; The Elder's House, or the Three Concerts; Château Lescure, or the Last Marquis; The Weeder and The Saga of Viking Torquill*, two poems which have much merit. In 1857 he became professor of belles-lettres at Mount St. Mary's college, near Cincinnati, and was ordained as a priest.

MACLURE, WILLIAM, 1763-1840; b. Scotland; came to this country in 1782, but returned to London, and engaged in mercantile business, from which he retired with a fortune. He made the United States his home after 1796, and went abroad in 1803 as a U. S. commissioner to settle the French spoliation claims. During this visit to the continent he pursued a course of geological study, making large collections of specimens. He had already determined to make a general geological survey of the United States, and on his return traveled extensively in furtherance of that object. The first account of his researches is found in his *Observations on the Geology of the United States*, which he read before the American philosophical society in 1809. He published a second paper in 1817, with a geological map of the United States. About this date he settled in Philadelphia, and was elected president of its academy of natural sciences, an office which he retained till his death. In the *Journal*, which he had founded as the organ of the academy, he published a description of the geology of the Antilles, which he visited in 1816. Three years later he went to Spain, where he bought a large tract of land from the government, then in the hands of the revolutionists, and endeavored to found a sort of agricultural school; but on the downfall of the provisional government the title to his land failed, and the experiment was abandoned. He afterwards entered upon a scheme of the same kind at New Harmony, Ind., which also was unsuccessful. In 1827 and again in 1828, he went to Mexico, and there he died. His library and most of his collection of maps and charts, with the sum of \$20,000 to erect a building for their reception, were bequeathed to the Philadelphia academy of natural sciences; and many of his specimens were given to the American geological society of New Haven, Conn.

MACMAHON, MARIE EDMÉ PATRICE MAURICE DE, Duke of MAGENTA, Marshal of France (*ante*), and President of the republic of France; b. Sully, *Saone-et-Loire*, June 12, 1808; son of a *maréchal de camp* under Louis XVIII. in 1814, who was made a peer in 1827. He was of an Irish family, who took refuge in Burgogne on the fall of the Stuarts. He graduated at the college of St. Cyr in 1825, and entered the army; was in the campaign of Algiers in 1830; at the siege of Antwerp in 1831; returned to Africa, and acted as aid-de-camp to several generals; was wounded severely in 1837; resumed active service in 1840; and, in consequence of brilliant and arduous service in Algeria, was rapidly advanced from that time till 1849, when he had become a gen. of division and commander of the legion of honor. In 1855 Napoleon III. recalled him from Africa, and gave him a command in the n. of France. In August he was sent to the Crimea to command a division under Bosquet. He arrived at Sebastopol on the eve of an assault, and had the command of the most exposed and aggressive division of the army, which stormed the great citadel, Sept. 22, 1855. On returning to France he was made senator. In a body distinguished principally for its servility to Napoleon, MacMahon was remarked for the good sense and sturdy independence of his votes. In 1857 he was placed in command of a part of the army of Algeria, and in 1858 made supreme in command. In 1859, on the breaking out of the war with Austria, MacMahon was put in command of the 2d corps. June 2 his forces pushed back the advance of the Austrians, and two days afterwards he was the chief director of the battle of Magenta, in which he turned into a victory a defeat impending through Napoleon's inefficiency. At the battle of Solferino, a few days later, he again signalized his generalship by victory. In Nov., 1861, he was sent to Berlin to represent France at the crowning of William III., king of Prussia. In Oct., 1862, he was commander of the 3d army corps at Nancy; and in Sept., 1864, was named governor-gen. of Algeria. In 1869 the plan of regal military government for Algeria was abandoned, and gen. MacMahon tendered his resignation. The war with Germany soon afterward opened. He was placed at the head of the 1st army corps, July, 1870. With 32,000 men and headquarters at Strasbourg, he seems to have separated his command strangely from the main army, and in the battles of Wissenberg and Reichshoffen suffered a crushing defeat by

the Prussians. He conducted the retreat of 18,000 of his demoralized army to Châlons. There, placed at the head of a newly organized force of 120,000, he was ordered, Aug. 23, to march to the relief of Bazaine. Thiers had remonstrated against the order, and MacMahon's advice had not been asked. The army marched into the gulf of Germans prepared for it, without power either to help or to be helped by Bazaine. On Sept. 1 the German environment was complete, and resulted in another crushing defeat of the French and a severe wound to MacMahon.

After the treaty of peace in Mar., 1871, Thiers called him to the command of the army of Versailles, to recover Paris from the commune. After an energetic siege MacMahon entered the city May 21, and on the 28th, after seven days of sanguinary fighting with the desperate forces of the commune and their conflagrations, he was master of the city. In September, in submitting to an examination concerning the cause of the disasters of the French army in the beginning of the war with the Germans, he generously took upon himself the blame of the first defeats. When Thiers announced that he favored the establishment of a conservative republic, MacMahon was urged to assume dictatorial powers. He refused, and gave his hearty support to the Thiers government. But the clerical and royalist parties combined to place Thiers in such a minority that, after his definitive resignation in May, 1873, as chief executive, they united to elect MacMahon provisional president of France. The object was to insure the peace of France, while each royalist faction was preparing to bring in its king. MacMahon accepted the functions of president of the republic, with the remark that the vote "brought no modification of the laws or of existing institutions." His message to the assembly breathed a simple desire to conform his acts to its will as their sentinel, servant, and executor. His military habits and predilections made his administration seem to tend to monarchical reaction. But the subsequent years proved that, whatever may have been his private predilections, he intended to conform conscientiously to his inaugural promise to obey and to enforce the laws. Nov. 19, 1873, his term of office was extended to 1880. His powers were almost imperial. He alone, during his term, had the right to propose a revision of the laws. Jan. 13, 1876, he addressed a letter to the French people on the eve of the first general election under the constitution of 1875. In this address he announced his policy as "conservative and liberal"—a policy of repose for France, whose "institutions ought not to be revised before they are honestly tried;" all whose parties, therefore, were urged to rally around his government. This frank appeal was met by an unexpected return of a largely increased number of republicans to the assembly. There was a growing fear in France that the personal government of MacMahon, however honest he might be, was too like the imperial *régime*, and tended to some new form of despotism. The pronounced republicans had a clear majority over their combined opponents. MacMahon, in deference to public opinion, changed his cabinet in part to represent the views of the republican majority, and the new assembly, at its convention, gave a hearty support to the executive, and emphasized the desire of France to preserve order at home and peace abroad. On the second session of the assembly, Dec., 1876, the government found itself in a minority, and some friction took place between the president's desires and those of the majority, which resulted in a compromise, by which Jules Simon, a sterling republican, was made vice-president of the council of ministers, and Martel minister of justice and religion. The president had opposed and secured the defeat of a motion of Victor Hugo for the pardon of the banished communists; but during the year following he pardoned a large number of them by virtue of his powers under the constitution. In April, 1877, the bishop of Nevers wrote to the president, calling upon him to draw the sword against Italy for "the prisoner of the Vatican," to which he sent an answer that the bishop had exceeded the functions of his office. May 16 a crisis in the government was precipitated by a letter from the president to his chief minister, Jules Simon, suggesting that his policy was not satisfactory. The latter immediately tendered his resignation, which was at once accepted. This action was supposed to mark a determination to break with the republicans, and to support one of the parties of the right. At the opening of the chamber the following day Gambetta made a motion: "that the confidence of the majority can be accorded only to a cabinet free in its action, and resolved to govern according to republican principles, which alone can guarantee order and prosperity at home and peace abroad." This was adopted by a vote of 355 to 154. A new cabinet was announced May 18, and the president addressed a message to the chambers in explanation of his policy, in which he called attention to his scrupulous adherence to the constitution of 1875 and to his selection of two successive ministers, Dufaure and Simon, for the supposed harmony of their views with the majority of the assembly; but that neither of them had been able to carry their measures by a majority; and that after these two attempts, equally devoid of success, he "could not take a step further in the same path without appealing to, or demanding support from, another section of the republican party—that which thinks the republic cannot be firmly established without having, as a complement and consequence, the radical modification of all our great institutions—judicial, financial, and military administrations. This programme is well known. Those who profess it are agreed on all it contains," etc. . . . "Neither my conscience nor my patriotism permits me to share, even afar off and as regards the future, in the triumph of these ideas. I do not think it opportune, either

to-day or to-morrow or at any period, that they should prevail. . . . I will neither try its application myself, nor facilitate its trial by my successors. As long as I am the depositary of power, I shall make use of it to the whole extent of its legal limits to oppose what I regard as the ruin of my country. But I am convinced that the country thinks as I do. It was not the triumph of these theories which it wished at the last elections." With much more of the same tenor, outspoken and decisive as to his distrust of the republic as outlined by Gambetta and the left, he decreed, by virtue of his power under the constitution, the adjournment of the chambers for one month. Within four days after the new ministry assumed office, prefects were changed in 62 departments, 225 out of 227 sub-prefectures received new offices, and all the influence and power of the government was developed to create a pressure of public opinion in its support. The day the message was read in the chambers, the deputies of the left, with Thiers at their head, prepared an address to the country, expressing the hope that "the nation will show, by its coolness, patience, and resolution, that an incorrigible minority cannot wrest from it its own government." Thus, the issue was fairly made up between the republicans and the bold and frank statement of the president that he wished to be supported in the singleness of his power. May 28, de Broglie, now chief minister, issued a circular, explaining that the president, in exercising his constitutional prerogative, intervened to arrest the progress of radical theories, etc., etc., and authorizing officers under the government to be vigilant to repress apologies for the commune and abuse of the president, and for the protection of morality, religion, and property. The president's new cabinet savored strongly of an intention to mold politics in France so as to promote the return of the young Napoleon to the imperial throne. Legitimists were excluded from it. June 11, their leader questioned the president as to the meaning of this action and as to a report, gaining credence, that he meditated a prolongation of his own power. They were assured that, "As to the legitimist candidates" (to the chamber of deputies), "they belong to the conservative groups, and any legitimist candidate really having any chance of success will be openly and loyally supported by the administration. With respect to schemes of prolonging my tenure of office during the prorogation, you may rest assured that I entertain none. I have received my right to remain in office until 1880 from the assembly, and I shall remain, unless a contingency I shall immediately point out to you shall arise. . . . I shall lend myself to no *coup de main* whatever. Let me also tell you that I shall lend myself to no venture of imperial, of monarchic restoration. . . . I shall participate in nothing favorable to the restoration, either of the prince imperial or of the comte de Chambord or of the comte de Paris. I am until 1880 invested with definite power by the constitution. I shall exercise that power, according to circumstances, to its full extent. . . . It will, perhaps, be necessary to demand a dissolution. If you accord it me, I shall use it as well as possible. If you refuse it, I should then have two forces out of three against me, and should withdraw."

When both chambers reassembled, June 16, the duc de Broglie ascended the tribune of the senate and read a message from the president asking their assent to the dissolution of the chamber of deputies. The message alluded to the manifesto signed by more than 300 deputies, protesting against the use made of his constitutional prerogative in proroguing the assembly, and to their appeals to their constituencies to oppose his measures, and deprecated the agitation which they were producing. It foretold a prompt dissolution of the assembly, and an appeal to the country in a general election for new delegates. "Warned in time, guarding against all misunderstanding and ambiguity, France, I am sure, will do justice to my intention, and will choose for her representatives those who will promise to second me." To the chamber of deputies the president addressed a message, of which the following is a part, which was read from the tribune by Fortou, minister of the interior: "The president of the republic remains convinced, after two sincere but fruitless trials, that no ministry can hope to muster a durable majority in this assembly without asking to be backed by the party which professes radical doctrines, and without thereby promoting the progress of them. Full of respect for the institutions which govern us, and resolved to maintain them intact, he thinks himself entitled to employ all the prerogatives which they gave him to resist another step being taken in a path which seems to him to lead to the ruin and degradation of the country. He has chosen ministers who share his idea in this respect, and assume in the eyes of France the responsibility of it." The debate which followed between Fortou, Gambetta, and Decazes was stormy, and the right undertook to stifle it with their turmoil. The vote on the dissolution passed the senate by 150 to 130. The chamber of deputies was therefore dissolved, and by the same decree fresh elections for the new chamber were ordered within three months. The 363 deputies who joined in a protest against the first prorogation of the chamber, united to offer themselves as one body for re-election. Nothing in politics can exceed the frankness of both parties in stating their positions and the clearness with which the issue was placed before the country. The canvass which followed was the most vigorously contested that had ever taken place in France. The republicans of all shades united on single candidates. The president was not so successful in securing unity of action, though the government pressure was used with an open energy that made its servants feel that they must leave nothing undone. The minister of the interior, Fortou, in his circular to them, said:

"Functionaries of every kind are knit to the government which has appointed them by ties which they are bound not to forget. We cannot permit any of them to be hostile to us. Any who will use against the government the authority which they hold from it, need expect neither toleration nor indulgence." The death of M. Thiers, Sept. 3, was momentarily a blow to the republicans, but was turned to a source of strength by the grateful feelings of all France in reviewing his life, and by the knowledge that his hand had sketched the plan of the campaign against the measures of president MacMahon. On Sept. 19 the latter issued a manifesto to the French people, in which he drew the line against the "radicals," and called upon Frenchmen to sustain him personally in defense of the constitution and conservatism. The address was answered by one from Thiers, which, though prepared before his death, was suitable to the occasion. He pictured—as with a hand stretching from the tomb—how all the words recently used to create fear of the republicans had been used by every ruler who had by turns used and abused the confidence of the people of France. The means taken by the government of MacMahon to carry the election as the day approached were more tyrannical. Gambetta's expression that after the election "the president would have to submit or resign," brought him a penalty of three months' imprisonment and 4,000 francs fine.

The election, Oct. 14, resulted in a republican victory, by the return of 315 to 199 of the government candidates. The new chambers met Nov. 7, and elected Jules Grévy president. The government was at once called to account for its abuse of the system of official candidatures, and de Broglie was ready for the question. On the 20th the president changed his ministry again, to eliminate those whom the popular verdict had made without power in the chamber, and nominated men of moderate views who had not become obnoxious to the country. The following statement, made by gen. Grimaudet de Rochboudet, the newly appointed minister of war and "president of the council, was an illy conceived defiance of the republican sentiment. . . . President McMahon has intrusted the ministry to men outside the political struggle. They will faithfully observe the law, and afford the marshal the support which he requires to facilitate commercial intercourse and the preparations for the exposition. We shall respect and require respect for the republican laws by which we are ruled. The constitution will pass intact from us to our successors *when president MacMahon judges opportune to replace us by parliamentary ministers.*" Jules Ferry moved "that the chamber consider that the ministry, by its composition, is a denial of the national rights of parliamentary law, and declined to enter into relations with it," which was carried by 323 to 208. MacMahon's new effort to maintain his personal government under the constitution was thus signally unsuccessful; and Dec. 14, 1877, he yielded to the republicans, and gave Dufaure full power to form a cabinet from the left. Peace was thus restored; and the assembly, after passing essential appropriate bills, adjourned a week after the new ministry came into power. Eighty-two prefects were changed to represent the new republican control. On the reassembling of the chambers Jan. 8, 1878, de Rumilly, president of the senate, alluded to the president's message of December, as showing that he was not a tool of the ministers of the 16th of May.

In succeeding elections the republicans gained largely, and MacMahon seemed to conform so loyally to the verdict of the country against his former policy that Gambetta supported a motion of confidence in the executive council, which passed the chamber by a vote of 436 to 34. So strong was the reaction in the president's favor that, about this time, the republicans suggested him as an available candidate for a second term. MacMahon had the honor of opening and closing the great exposition of Paris of 1878. By the perfect order of the city, its marvelous cleanliness, and the harmony in the working of all the departments of the government, France showed that the republic had at last settled into a permanent beneficence. On the assembling of the chambers, Jan., 1879, a difference occurred between the president and his prime minister, Dufaure, concerning a decree for the removal of government subordinate officials not in sympathy with the republic. He yielded to his ministers on the civil lists prepared by them for removal, but when it came to the officers of the army designated to be superseded he refused, and declared he would rather resign. The council of ministers remained firm, and insisted on the removals. At 1 P.M., Jan. 30, the marshal sent in to the council his formal resignation as president of the republic. The ministers in council then offered their resignations, conditioned that he could form another ministry that would satisfy the chambers without executing their decrees of Jan. 20. The president replied in effect that he did not believe that possible. In the afternoon of the same day the ministers presented to the chambers the letter of resignation of the president. It contained these words: "The cabinet, in the belief of responding to the majority in the two chambers, now proposes to me, as regards the great commands, general measures which I deem contrary to the interests of the army, and consequently to those of the country. I cannot subscribe to them. In view of this refusal the cabinet resigns. Any other cabinet taken from the majority of the chambers would impose the same conditions on me. I accordingly . . . resign the presidency of the republic. In leaving office I have the consolation of believing that, during the fifty-three years I have devoted to the service of my country as a soldier and as a citizen, I have never been guided by other sentiments than those of honor and duty, and by perfect devotion to my country." At 4.30 P.M. the two chambers assembled for joint-action to elect a president. Jules Grévy

received 563 out of 713 votes, and was declared elected. Thus, within three hours and a half, the change in the executive head of the government had been made in accordance with constitutional forms, and marshal MacMahon retired to private life honored by all parties. In March following, when the question of the impeachment of the de Broglie ministry was under discussion in the chambers, marshal MacMahon wrote to president Grévy a letter, assuming the responsibility of the acts of his ministers of May 16, 1877, and claiming that, if they were to be impeached, he must be placed with them. The impeachment project was negatived. The ex-president is still living (1881), and regarded as an honest and able man, whose military education and life unfitted him, to a certain degree, to understand a republican form of government, and that order and stability among a people do not altogether depend on force or require a military *régime* to insure them.

McMICHAEL, MORTON, 1807-79; b. in Burlington co., N. J.; began at an early age to write for the press, and in 1844 became editor-in-chief of the Philadelphia *North American*, a daily journal of wide influence. He was an able writer and an eloquent speaker, and as a politician wielded a large influence. He was mayor of Philadelphia from 1865 to 1868, and died in that city.

MACMILLAN, HUGH, LL.D., b. Scotland, 1833; educated at Breadalbane academy and Edinburgh university. He was minister of the free church in Kirkmichael, Perthshire, in 1859, and five years later was transferred to the free St. Peter's church in Glasgow, where he remains. He has published *Bible Teachings in Nature* (1866), a work which met with great success, and has been translated into several continental languages; *First Forms of Vegetation*; *The True Vine*; *The Ministry of Nature*; *The Garden and the City*; *Sunglints in the Wilderness*; *The Sabbath of the Fields*, which has been translated into Danish and Norwegian; and *Our Lord's Three Raisings from the Dead*. He has also been a prolific contributor to periodical literature. He is an LL.D. of the university of St. Andrews.

McMINN, a co. in s.e. Tennessee; 480 sq.m.; pop. '80, 15,064. It is drained by the Hiawassee river and Chestna creek, and traversed by the Tennessee, Virginia and Georgia railroad. Corn and whisky are the staples. Capital, Athens.

McMULLEN, a co. in s.w. Texas, traversed by the Nueces and Frio rivers; 1250 sq.m.; pop. '80, 701. The breeding of stock is almost the only industry. The only town is McMullen.

McMURROGH, DERMOT, King of Leinster, Ireland. He became king in 1140, but was expelled by his subjects in 1168. Henry II. of England refused to aid him, but Richard de Clare, earl of Pembroke (surnamed Strongbow), restored him to power in 1170. The earl married the daughter of the king, and when the latter died, in the same year, the former succeeded him as king and as a vassal of England; laying thus the foundation of the English claim of supremacy in Ireland.

McNAB, Sir ALAN NAPIER, 1793-1862; entered the royal navy as a midshipman in 1813, and took part in the British expedition against Sackett's Harbor and other American towns. He left the navy, and became an ensign in the army, commanding the advance at the battle of Plattsburg. At the close of the war 1812-15 he remained in Canada, studied law, and was admitted to practice at the Canadian bar. He was elected to the legislature, became speaker of the legislative assembly, and prime minister in the government of the earl of Elgin, and that of sir Edmund Head, which followed. He was prominent in sustaining the government against the insurrection of 1837-38, being appointed col. of militia. While in command at Niagara he ordered the seizure of the steamer *Caroline*, which was conveying supplies to the rebels, from the American side, set fire to her, and sent her over Niagara Falls. This daring act was approved by the British government, and McNab was rewarded for it by being knighted. In 1841 he was speaker of the legislature; in 1858 was made a baronet; and in 1860 became a member of the legislative council.

McNAIRY, a co. in s.w. Tennessee, watered by affluents of the Big Hatchie river, and reached by the Mobile and Ohio, and Memphis and Charleston railroads; 620 sq.m.; pop. '80, 17,271. The productions are Indian corn, wheat, oats, wool, cotton, and sweet potatoes. A large proportion of this county is covered with a dense growth of ash, chestnut, hickory, oak, and other timber. Co. seat, Purdy.

MACNEIL, HECTOR, 1746-1818; b. Scotland; educated by his parents at home, and at a commercial school in Glasgow. After spending some time in the mercantile house of one of his relatives at Bristol he sailed for the West Indies, where he remained for six years. Some two years after his return to England, having lost the little property left him by his father, he secured the place of assistant secretary on the flag-ship of admiral Geary; and afterwards held the same position on the flag-ship of sir Richard Bickerton, with whom he sailed to the East Indies. While in India he visited the sculptures at Elephanta, which he described in *Archæologia* for 1787. He spent five years in India, and on his return to Scotland settled near Stirling, and composed his poem called *The Links of Forth*. He next went to Kingston, Jamaica, to accept an office in the custom-house there, but ill-health compelled him to return, and on the homeward voyage he wrote a canto of his poem *The Harp*. For the next six years, still suffering from

ill-health, he lived in retirement near Bannockburn, and composed *Scotland's Skaith*, his best work, published in 1795. At the end of this period he again sailed for Jamaica, where he recovered his health; and about the same time he received a legacy sufficient to enable him to live at ease for the rest of his life. He had written *The Scottish Muse*, a sort of poetical autobiography, while in Jamaica; and at Edinburgh, which he made his home henceforth, he published in 1812 *The Pastoral or Lyric Muse of Scotland*; in 1810 two satires under the name of *Town Fashions*; in 1811 *Bygone Times and Late Come Changes*; and in 1812 *The Scottish Adventurers*, an historical novel.

MCNEIL, JOHN, 1784-1850; b. N. H.; capt. and afterwards maj. in the 11th regiment U. S. infantry in the war of 1812. The battle of Chippewa, July 5, 1814, was mainly decided in favor of the Americans by the bayonet charge made by McNeil's regiment, to whose command on that day, after the death of its col., he succeeded. For his gallantry in that action, and at Lundy's Lane, July 25, where he was severely wounded, he was brevetted lieut.col. and col. He continued in the service till 1830, was brevetted brig.gen. in 1824, and made col. of the first regiment of infantry in 1826. In 1829 he was made surveyor of the port of Boston, and retained that office till his death.

MCNEILE, HUGH, D.D., 1795-1879; b. at Ballycastle, Antrim, Ireland; educated at Trinity college, Dublin, where he received the degrees of M.A. and D.D. in after years. He studied for the law, but in 1820 took orders, and after holding several preferments, was made canon of Chester, and in 1868 dean of Ripon. He was a popular preacher, of powerful diction and elegant delivery. Among his published works are lectures on the *Church of England*, *Prophecies of the Jews*, and sermons on the *Second Advent*, and many other topics.

MCNEILL, Sir JOHN, D.C.L., b. Scotland, 1795; assistant ambassador to the Persian court in 1881, secretary of the Persian embassy in 1884, and envoy extraordinary to the Persian court in 1886. On his return to Great Britain in 1844 he was made chairman of the committee appointed to take charge of the operation of the Scotch poor-law act; and in 1851 he made a report to the government upon the condition of the western Highlands and islands. Four years later, under the Palmerston administration, he was put at the head of the board of inquiry appointed to investigate the proceedings of the commissary department during the Crimean war; and for his services in that capacity, he was sworn in of the privy council. He published in 1854 *Progress and Position of Russia in the East to 1854*.

MCNEILL, WILLIAM GIBBS, 1800-53, b. N.C.; graduated at West Point, and entering the army, was attached at first to the artillery, and afterwards to the topographical engineers. He resigned from the army in 1837, and took up the profession of a civil engineer, in which he was eminently successful. He was chief engineer of a number of railroads, and of the dry dock in the navy-yard at Brooklyn. He assisted in making the survey for the Baltimore and Ohio railroad, and was president of the Chesapeake and Ohio canal company.

MACNEVEN, WILLIAM JAMES, 1763-1841, b. Ireland; studied medicine at Vienna, and practiced at Dublin. He was a member of the "United Irishmen," and for his participation in the designs of that organization was arrested in 1798, and imprisoned. Released in 1802 he traveled through Switzerland, writing a description of his travels in his *Ramble through Switzerland*. Soon afterwards he took a commission in the Irish brigade attached to the French service. Finding that his expectations of a French invasion of Ireland were baseless, he threw up his commission, and went to New York, where he resumed the practice of his profession. He was one of the editors of the *New York Medical and Philosophical Journal*; from 1808 to 1830 a professor in the college of physicians and surgeons, and at the medical school connected with Rutgers college in New Jersey. He published *Exposition of the Atomic Theory*, and *Pieces of Irish History*.

MACNISH, ROBERT, 1802-37; b. Glasgow, where he passed his life in practice as a physician. He contributed to *Blackwood's* and *Frazer's Magazines*, and became very popular. He published *The Metempsychosis*, 1825; *The Anatomy of Drunkenness*, 1827; *The Philosophy of Sleep*, and other works.

MACOMB', a co. in e. Michigan on lake St. Clair, traversed by Clinton river and the Grand Trunk railroad; 375 sq.m.; pop. '70, 27,616; co. seat, Mt. Vincent. The products are all the cereals, wool, butter, and hay. There are some manufactures.

MACOMB', a t. and vill., the capital of McDonough co., Ill., on the Chicago and Quincy railroad, 200 m. from Chicago; pop. of vill., 2,748; of t. 4,313. The McDonough normal college is here, and the place has good schools, a fine court-house, 3 newspapers, 2 banks, a foundry, and several wagon and carriage manufactories.

MACOMB', ALEXANDER, 1782-1841, b. Mich., entered the cavalry service of the United States in 1799, and rose to be lieut.col. of engineers and adj.gen. When the second war with England broke out he was transferred to the artillery at his own request, and in 1813, at the head of the 3d artillery, was at fort Niagara and the surrender of fort George. In January of the next year he was made a brig.gen. commanding the n. frontier along lake Champlain. In September of the same year he successfully defended Plattsburg, which was besieged by sir George Prevost, who had invaded New

York with a force of 12,000 men. Upon the same day that Plattsburg was attacked, the British fleet on lake Champlain was defeated by commodore McDonough, and the British army retreated to Canada forthwith. For his conduct at Plattsburgh Macomb was made a maj.gen, and congress voted him its thanks and a gold medal, in recognition of his services. After the war he was commissioned a col. of engineers in the regular army, of which he became commander-in-chief in 1835. He was the author of *A Treatise on Martial Law*.

MACOMB', WILLIAM H., 1820-72, b. Michigan; entered the U. S. navy in 1834, and was appointed lieut. in 1847. He was on the *Plymouth* when the Chinese forts were bombarded in 1856, and was made a commander in 1862. He was on duty at various points on the Mississippi river through the year 1863, and in 1864 at the head of a squadron of gunboats took possession after a sharp struggle of Plymouth, N. C.; and was officially thanked by the navy department for his conduct on that occasion. He was appointed commodore in 1870.

MACON, an c. co. of Alabama, watered by branches of the Tallapoosa river, intersected by the Montgomery and West Point railroad; 700 sq.m.; pop. '80, 17,373. The surface is varied and the soil fertile; productions are Indian corn, rye, cotton, rice, sweet potatoes, and oats. Co. seat, Tuskegee.

MACON, a co. in s.w. central Georgia; drained by Flint river, and many creeks; traversed by the South-western railroad; 370 sq.m.; pop. '80, 11,675. The principal products are corn and cotton; chief town, Oglethorpe.

MACON, a co. in central Illinois, traversed by the Illinois Central, and Toledo, Wabash and Western railroads, and by a fork of the Sangamon river; 549 sq.m.; pop. '80, 30,672. The surface is level, and the soil fertile. The productions are tobacco, wool, cotton, Indian corn, wheat, Irish and sweet potatoes, and butter. There are a large number of manufactories, chiefly of agricultural implements and carriages. Co. seat, Decatur.

MACON, a co. in n.e. Missouri, traversed by Chariton and the e. fork of Salt rivers, and by the Hannibal and St. Joseph, and Northern Missouri railroads; 830 sq.m.; pop. '80, 26,223; co. seat, Macon city. There are mines of iron, lead, and coal, the latter very plentiful. Grain and tobacco are the chief products. The soil is well watered and fertile.

MACON, a co. in s.w. North Carolina, on the boundary line of Georgia, drained by the head-waters of the Tennessee river, having the Blue ridge range of mountains on the s.e.; 600 sq.m.; pop. '80, 8,064. The surface is generally elevated, and the soil is fertile, producing wheat, Indian corn, oats, Irish and sweet potatoes, tobacco, wool, butter, and hay. Co. seat, Franklin.

MACON, a co. in n. Tennessee, bounded by Kentucky on the n.; watered by branches of the Cumberland and Big Barren rivers; 260 sq.m.; pop. '80, 9,274. It has a varied surface, and fertile soil in most parts; and produces largely of tobacco, besides Indian corn, wheat, oats, Irish and sweet potatoes, cotton, etc. Co. seat, Lafayette.

MACON (*ante*), chief t. of Bibb co. in s. central Georgia; in size the fourth city of the state; pop. '80, 12,748. It is pleasantly situated on both sides of the Ocmulgee river, 85 m. s.e. of Atlanta and 30 m. s.w. of Milledgeville, on the Georgia Central railroad. It has a number of iron and other manufactories, 3 newspapers, 7 churches, and 6 banks. It is the seat of the Wesleyan college for women, and Mercer university. It is especially noted for the taste with which its streets and parks are laid out, and the great abundance of its shade trees. Several artificial mounds are found in the vicinity.

MACON, chief t. in Macon co., Mo., 175 m. from St. Louis, at junction of the Hannibal and St. Joseph, and St. Louis, Kansas City and Northern railroads; pop. '70, 3,678. It has 2 banks, 4 weekly papers, a factory, several schools and churches, and does a good country trade.

MACON, NATHANIEL, 1757-1837, b. N. C.; educated at the college of New Jersey, where he was an undergraduate when the revolutionary war broke out. Leaving Princeton in 1777 he enlisted as a private soldier in a volunteer company, but after a short term of service returned to his home in North Carolina, where he began to read law. But he soon abandoned his legal studies, and declining all offers of a commission re-enlisted as a private in the regiment of his brother, col. John Macon. He remained in the army as a common soldier without pay till the treaty of peace in 1782; and at the close of the war could not be prevailed upon to accept any compensation or pension for his service. While the war was still going on he had been elected, though but 23 years of age, a member of the senate of his native state; and he retained his seat for five successive years. He served on some of the principal committees of that body, and he was conspicuous in his advocacy of measures to maintain the credit of the state, and to redeem and withdraw from circulation the paper currency. About this time he removed to a plantation on the Roanoke river, and devoted

to agriculture all of his time left free by the care of public affairs. When the adoption of the new U. S. constitution came before the people of North Carolina, Macon opposed its ratification, as conferring too great powers upon the general government. He was a member of congress 1791-1815, and its speaker 1801-06. He was twice offered, by Jefferson, the office of postmaster-general, but refused it. He was chosen to the U. S. senate in 1816; was its president *pro tem.* 1825-27; and resigned his seat in 1828. While in congress he was in favor of the embargo, and was a qualified supporter of the war with England; but he would not vote for appropriation to increase the navy beyond a point sufficient to protect our line of coast, nor sanction the construction of additional forts. Throughout his congressional career he steadily opposed the policy of internal improvements. In 1824 he voted against the bill to make Lafayette a grant out of the public lands in consideration of his services in the revolution. The same year he received the electoral vote of Virginia for the office of vice-president. In 1835 he was president of the North Carolina constitutional convention, where he opposed state aid to internal improvements, a property qualification for the suffrage, and the extension of the right of suffrage to free negroes. The last public office which he accepted was that of a presidential elector in 1836.

MÂCONNAIS, the name of an ancient department of France, in the kingdom of Bourgogne, or Burgundy, and corresponding with what is now the arrondissement of Mâcon. It was conquered by Julius Cæsar from the *Ædui*, and fell into the hands of the Burgundians in the 5th century. It afterwards became a part of the empire of Charlemagne; St. Louis (IX.) purchased it in the 13th c., and united it to the domains of the crown; but in the middle of the next century it fell into the hands of the duke de Berry; then the crown obtained possession of it again; it was given to Philip the good, duke of Burgundy, by Charles VII.; and in 1477 again reverted to the crown. Capital, Mâcon.

MACOUPIN, a co. in central Illinois; 864 sq.m.; pop. '80, 37,705; traversed by the Chicago and Alton, and Indianapolis and St. Louis railroads. The soil is fertile and diversified; there is some coal-mining, but the staple products are wool, grain, and cattle.

MACOYA or **MACAHUBA PALM**, a South American and West Indian palm, called also macahuba palm and great macaw tree. It yields an oil used in making soap, to which it imparts a pleasant perfume. It is also used as an embrocation in rheumatism and other painful affections. It may be combined with hartshorn, when it forms a white liniment.

MACPHERSON, a co. of central Dakotah, 1260 sq.m.; recently formed. It is watered by the Maple and Elm rivers, branches of the Dakota. The surface is generally elevated, and in the w. part is the plateau du coteau of the Missouri.

McPHERSON, a co. of central Kansas, watered by the Smoky Hill and Little Arkansas rivers; 1080 sq.m.; pop. '80, 17,143. It comprises prairie lands, with a fertile soil, producing wheat, Indian corn, potatoes, and hay, and well adapted for stock-raising. Co. seat, Lindborg.

McPHERSON, EDWARD, LL.D., b. Gettysburg, Penn., 1830; graduated at Pennsylvania college in 1848; entered the profession of journalism at Harrisburg, Penn., and was elected to congress in 1858, serving a single term. He was clerk of the U. S. house of representatives from 1863 to 1869; secretary of the union national committee from 1860 to 1864; president of the republican national convention at Cincinnati in 1876; and is at present editor-in-chief of the *Philadelphia Press*. He has the repute of the foremost American political statit, having published a *Political History of the United States* and a *Political Manual*, and edited several numbers of *The Tribune Almanac*.

McPHERSON, JAMES BIRDSEYE, 1828-64; b. Ohio; graduated at West Point in 1853, and was appointed to the engineers. For a year after his graduation he gave instruction in engineering at the academy, and was next engaged as assistant engineer upon the defenses of the harbor of New York, and the improvement of Hudson river. In 1857 he superintended the building of fort Delaware, and of the fortifications in the harbor of San Francisco. In 1861, having been made first lieut. three years previous, he was assigned to duty at Boston, where he raised a force of engineers; and in Aug. of the same year he was promoted to a captaincy of engineers. The following Nov. he was made assistant engineer of the department of the Missouri, with the rank of lieut.col. Made chief engineer on the staff of gen. Grant, he took part in the capture of fort Donelson, Feb. 19, 1862, and in the battle of Shiloh, April 6, 7. In May he was appointed brig.gen. of volunteers, and col. in the regular army. He was with Halleck at the "siege of Corinth;" and when, after its capture by the federal forces, the confederates with a force of nearly 40,000 men, under Van Dorn and Price, attempted to retake it in Oct., 1862, McPherson succeeded in penetrating their lines and reinforcing Rosecrans, who had fortified Corinth with additional defenses, and was holding it with 20,000 men. For his services at Corinth, McPherson was promoted maj.gen. of volunteers, Oct. 8, 1862. In December he was put at the head of the 17th corps, and he had a most distinguished share in Grant's Mississippi campaign, which terminated in the surrender of Vicksburg. He led the advance up the left bank of the Big Black river, defeating the confederates at Raymond, May 12, 1863. The 17th corps was at the front of every movement in the campaign; it drove the confederates from their position at Port Gib-

son, after an all day's fight; it was engaged in almost continual skirmishes from the bayou Pierre to the Big Black river; it won the battle at Raymond without any aid from the rest of the army; and two days afterwards, with the help of Sherman's corps, which had joined Grant early in the month, it won another battle at Jackson. McPherson's corps was likewise conspicuous in the repulse of Pemberton at Champion hills, May 16, in the unsuccessful assault by the federal army before Vicksburg, May 22; and throughout the siege. After the capture of Vicksburg, McPherson was appointed a brig.gen. in the regular army, and commander of the district of Vicksburg. In Feb., 1864, he was next in command to Sherman in the latter's expedition to Meridian; and Mar. 12 was made commander of the army and department of the Tennessee. In that command, he kept up the reputation he had won in Mississippi, and rendered the most valuable services during Sherman's campaign in Georgia. The army of the Tennessee engaged the confederates at Dallas, May 28, 1864; and June 27, McPherson and Thomas made an unsuccessful assault upon Johnston's position at Kenesaw mountain. Early in July, Johnston abandoned Kenesaw, and retreated in the direction of Atlanta, closely followed by the federal forces. The confederates now took the offensive, and made almost daily attacks upon the union army; and in one of these, July 22, 1864, McPherson was killed. Gen. Grant, in a letter recommending him for promotion, in 1863, praises him as "one of the ablest engineers and most skillful generals."

MACRAUCHENIA, a genus of extinct ungulate animals allied to the tapirs, found in the tertiary deposits of Buenos Ayres and Patagonia. See **PERISSODACTYLS**.

McREE, WILLIAM, 1788-1832, b. Wilmington, N. C.; graduated at West Point in 1805; entered the army as second lieut. of engineers, and rose by regular promotion to the rank of lieut.col. in 1818. Prior to 1812 he was employed in the survey and construction of fortifications on the Atlantic coast. In the war of that period with Great Britain he served first as chief of artillery in gen. Hampton's northern army, and later as chief engineer of the army of gen. Brown, winning distinction in the capture and defense of fort Erie, and in the battles of Chippewa and Niagara, for which he was successively brevetted lieut.col. and col. After the war was over he visited Europe with maj. Thayer, under direction of the government, for professional observation and the purchase of professional works. After his return, in 1816, he was made a member of the board of engineers to which was assigned the duty of preparing a system of defenses for the Atlantic coast. He was engaged in this service until 1819, when the French engineer, gen. Barnard, was appointed "assistant engineer of the United States." Sharing with other officers of his corps the feeling that it was unjust to overlook the merits and claims of American officers and appoint a foreigner over them, he resigned. He afterwards rendered valuable service as surveyor-general of Illinois, Missouri, and Arkansas. Died in St. Louis.

MACRINUS, M. OPELIUS, 164-218 A.D., a native of Mauritania; became pretorian prefect under Caracalla, whom he assassinated on the expedition against Parthia in 217 A.D. He was at once chosen emperor by the army, and the senate confirmed the choice. He fought the Parthians, neither side gaining a decisive victory; made terms with them and returned to Antioch. His severe discipline aroused the anger of his soldiers, who were also united by the relatives of Caracalla, and after a reign of 14 months he and his son were put to death at Chalcedon and Heliogabalus ascended the throne.

MACROPIDÆ, a family of marsupial animals including the kangaroos and kangaroo rats. See **KANGAROO** and **MARSUPIALIA ante**.

McSPARRAN, JAMES, D.D., 1695-1757, b. in the n. of Ireland, and came to Narragansett, R. I. in 1721, as a missionary of the Episcopal society for the propagation of the gospel in foreign parts; was an intimate friend of bishop Berkeley at Newport; visited England in 1736; was an eloquent and popular preacher; wrote *America Dissected*, a historical and geographical treatise, which Updike has republished in his *History of the Episcopal Church in Narragansett, R. I.* He was engaged at the time of his death upon an extended history of the colonies.

McTYEIRE, HOLLAND NIMMONS, B. S. C., 1824; graduated at Randolph-Macon college, Virginia, in 1844, in which year he entered the ministry. He became pastor of a church (Methodist Episcopal) in Mobile, and in 1847 married Amelia Townsend, cousin of the widow of the late Cornelius Vanderbilt, whose family were members of his pastoral charge. During the years between 1848 and 1858 he was appointed to churches in New Orleans, and distinguished himself by being among the few pastors who remained with their people during the yellow fever epidemics which devastated that city. In 1851 he was made the first editor of the New Orleans *Christian Advocate*. In 1858 he was called to Nashville, Tenn., to take editorial charge of the central organ of the Methodist Episcopal church, south, there published. At the general conference he was elected and consecrated bishop, and fixed his residence in Nashville. When Cornelius Vanderbilt founded the university named after him, situated at Nashville, he named bishop McTyeire as the first president of the board of trust controlling the affairs of the institution, and intrusted to him the fullest powers and discretion as to its establishment and control. The deed of gift contained the only instance on record of vesting the veto

power in the president of a board of trustees. This was done by commodore Vanderbilt in the instance of bishop McTyeire, at once to signify his profound confidence in him personally, and perhaps not less to indicate his faith in a "one-man power." To the president of the new university fell the chief responsibility concerning all its details of construction, organization, and adaptation to its comprehensive uses. Its success has been the best evidence of the sound judgment displayed by the founder in his selection.

MACVEAGH, WAYNE, b. Penn., 1833; educated at Yale college, where he graduated with a high rank in the class of 1853. He studied law in the office of James J. Lewis, at Westchester, Penn., and began practice in that town. As a boy he had already exhibited much force as a debater, and by his oratorical powers and keen argument he soon gained a high place among the members of the state bar, and was intrusted with several cases before the U. S. supreme court. At the outbreak of the civil war he volunteered, and was commissioned maj. of a cavalry regiment, but was soon forced to resign by ill-health. He resumed his practice and took a prominent part in politics, being chairman of the republican state committee in 1868. Shortly after he was appointed minister to Turkey by president Grant. Mr. MacVeagh soon became noted for the independence of his political views, and was an influential member of the young men's reform club of Philadelphia. On Mar. 5, 1881, president James A. Garfield sent in his name to the senate as attorney-general of the new cabinet, and the nomination was confirmed upon the same day.

McVICKAR, JOHN, D.D., 1787-1868; b. N. Y.; educated at Columbia college, and ordained to the ministry of the Protestant Episcopal church. He was rector of St. James's church in Hyde Park from 1811 to 1817, when he was elected professor of moral philosophy, rhetoric, and belles-lettres in Columbia college, where he remained till 1864, when he was made professor emeritus. He published, among other works, *Outlines of Political Economy*, 1831; *Early Years of Bishop Hobart*, 1834; *Professional Years of Bishop Hobart*, 1836.

MCWHORTER, ALEXANDER, D.D., 1734-1807; b. New Castle co., Del.; graduated at the college of New Jersey in 1757; studied theology under William Tennent; was installed pastor of the Presbyterian church at Newark, N. J.; went on a mission to North Carolina in 1764; became chaplain in Knox's artillery brigade in 1778; in 1779 became pastor at Charlotte, N. C., and president of Queen's museum college, then called Liberty hall; returned to Newark in 1781; aided in preparing the constitution of the American Presbyterian church in 1788; was 35 years a trustee of the college of New Jersey; labored to collect funds in New England to rebuild his church that had been burnt in 1802; published a centennial sermon in Newark in 1800, and 2 volumes of sermons in 1803.

MCWHORTER, ALEXANDER, b. New York, 1822; graduated at Yale college in 1842 and at the divinity school in 1845; was professor of English literature and metaphysics at the university of Troy from 1855 to 1860; author of *Yahveh Christ, or the Memorial Name*. Toward the last of his life his mind was disordered.

MADAME (plural, *Mesdames*), the French word or title of respect and honor formerly applied exclusively to ladies of high rank, but now employed in addressing all married ladies. It is derived from the two French words *ma*, my, and *dame*, lady. In nearly every country in Europe and in the United States, it has come into use to distinguish married from unmarried ladies; and it is certainly a better word than the old English title of mistress, which we abbreviate to Mrs. and mispronounce missis. The French consider it a mark of respect to address ladies whose condition, whether married or unmarried, is not known, by the title of madame. Though the regular plural is *mesdames*, there are many phrases in French which permit the use of *madames* and *madame* in the plural: as "The Mrs. Smiths were numerous there," would be translated—*Les madame Smith y étaient nombreuses*. "There are many ladies without a gentleman," would be expressed by—*Il ya bien de madames sans messieur*. The word lady alone would be expressed in French simply by *dame*, and not *madame*, except when personally addressed, either orally or in writing, when the prefix *ma* is invariably added.

MADAR'. See MUDAR, *ante*.

MADAWAS'KA, a co. in n.w. New Brunswick; 1500 sq.m.; traversed by branches of the St. John, which separates it from Maine on the s.w.; was formerly part of Victoria co. The surface is hilly but fertile.

MADDEN, Sir FREDERICK, 1801-73; b. Portsmouth, Eng.; entered the service of the British museum in 1826 as a cataloguer; two years later was made assistant-keeper of the department of manuscripts, and in 1837 became keeper of the department. He was made a knight of the Hanoverian order by king William IV. in 1832, and in 1834 was gazetted one of the gentlemen of the privy chamber. He continued to hold his post in the British museum until 1866, when he retired; the remainder of his life was devoted to antiquarian and literary study. He edited for the Roxburghe club the metrical romance of *Havelok the Dane*; he also edited *Layamon's Brut, or Chronicle of Britain*; *Illuminated Ornaments Selected from MSS. and Early Printed Books from the 6th to the 7th centuries*; and other works.

MADDEN, RICHARD ROBERT, b. Dublin, 1798; studied medicine, and was a fellow of the royal college of surgeons. His life has been passed in various official positions in the civil service, the latter part of it as secretary to the loan fund board in Dublin castle. He is best known as a fertile and versatile writer of biography, fiction, travels, history, etc. His principal works are *The Infirmities of Genius*; *Shrines and Sepulchres of the Old and New World*; *The Life and Martyrdom of Saronarola*; *The Turkish Empire in its Relations with Christianity and Civilization*; and *The United Irishmen of 1798*.

MADEIRA NUT, the fruit of the *Juglans regia*, a large timber tree. It is an edible nut, popularly known as the English walnut. A drying oil, of much value in the manufacture of varnishes, is made from its kernel.

MADEIRA WINE is produced on the Portuguese island of Madeira in the Atlantic ocean. The introduction of vines dates from 1421, and wine was until within recent years exported in large quantities. The valley of the Cama de Lobos became known for its excellent Malmsey wine, besides which the dry Maderia, the sercial, and the *tinto* were much sought after. The grapes are almost all white, and ripen in the shade of trellises, where they are allowed to become half dry before being gathered. It is said that they all come from stocks which were brought from Candia in 1445. The principal wine growers are Englishmen, as Madeira wine has always been consumed in large quantities in England. There is an enormous proportion of wine, manufactured in Europe, sold as genuine Madeira, which, together with the destruction of the vines by the *oidium*, reduced the production from 22,000 pipes in 1813 to 3,000 in 1844; in consequence of which many of the inhabitants have emigrated to the West Indies and Guiana. From 1847 to 1855 the vintages decreased as follows: 1847-50, 16,000 pipes; 1851, 12,000; 1852, 1000; 1853, 754; 1854, 187; 1855, 29. In 1857, however, the sulphur remedy was tried with great success, and a decided improvement was noticed in the wine production of 1861. At the present time there are favorable signs that the vintage of Madeira may, with judicious cultivation, reach its former prosperity.

MADISON, a co. in n. Alabama, having the state line of Tennessee for its n. boundary, and the Tennessee river for its s. is drained by the Flint river, emptying into the Tennessee; 800 sq.m.; pop. '80, 37,625—37,433 of American birth, 19,033 colored. Its surface is undulating, rising in the n. into high hills, and in the s. stretching into wide fertile prairies. It has a large proportion of tillable land, as well as extensive forests. Its soil, with a limestone foundation, is fertile, and produces live stock, every kind of grain, tobacco, cotton, wool, sorghum, and sweet-potatoes. In '70, it produced 6,334 lbs. of honey. Cash value of farms in '70, \$2,194,834, numbering 2,758. It had in '70, 93 manufacturing establishments, including foundries, manufactories of sashes and blinds, carriages and wagons, cotton goods, flour and saw mills, employing 449 hands, with a capital of \$167,440, and an annual product of \$501,096. It is intersected by the Memphis and Charleston railroad. Seat of justice, Huntsville.

MADISON, a co. in n.w. Arkansas, having a range of the Ozark mountains for its s. boundary, is drained by the War Eagle, King's river, and the Main Fork, all branches of the White river; 750 sq.m.; pop. '80, 11,455—11,439 of American birth, 124 colored. Its surface is mountainous. Groves of oak, chestnut, pine, and fir grow on the hill sides, in which are found deposits of iron ore, marble, and limestone. The products of its soil are adapted to the raising of live stock; oats, corn, rye, wheat, tobacco, wool, sweet-potatoes, honey, sorghum, and flax are cultivated. Seat of justice, Huntsville.

MADISON, a co. in n. Florida, having the state line of Georgia for its n. boundary, lake Micosuki for its extreme n.w., and the Withlacoochie river, a branch of the Suwanee, for its e. border; 750 sq.m.; pop. '80, 14,798—14,773 of American birth, 9,190 colored. It is also drained by the Ocala river, forming its s.w. boundary and emptying into Appalachee bay. Its surface is uneven and broken, and largely covered with forests of good building timber, which is an article of export. Its soil, near the water courses, is fertile and suited to the production of live stock, oats, corn, cotton, wool, sweet-potatoes, and sugar-cane. It had in '70, 16 manufacturing establishments, mostly lumber and grist mills, and machine shops, employing 96 hands, with a capital of \$75,900, and an annual product of \$102,825. It is intersected centrally by the Jacksonville, Pensacola and Mobile railroad. Seat of justice, Madison.

MADISON, a co. in n.e. Georgia, having branches of the Broad river of Georgia for its s. and e. boundary; 400 sq.m.; pop. '80, 7,978—7,973 of American birth, 2,586 colored. Its surface is hilly and two-thirds covered with a dense growth of timber. Granite, gold, and iron are its mineral products. In some localities there are mineral springs of great medicinal value; and its soil, partly fertile, is adapted to the raising of cattle, sheep and swine, oats, corn, wheat, cotton, wool, and sweet-potatoes. Seat of justice, Danielsville.

MADISON, a co. in s.w. Illinois, having the Mississippi river for its w. boundary, separating it from Missouri; the Missouri river emptying into the Mississippi in its vicinity; 750 sq.m.; pop. '80, 50,141—38,518 of American birth. It is drained by Cahokia creek, and numerous small creeks and rivulets. Its surface is generally level, with well wooded elevations in the w. part, on which elm, walnut, linden, and maple

trees are found, as well as oak, hickory, and ash. Its soil is fertile, and rests on strata of carboniferous limestone and bituminous coal, which appears in largest quantities at Alton. Coal, lime, and building stone are exported. It is traversed by the Indianapolis and St. Louis railroad, and the St. Louis, Vandalia and Terre Haute. The Jackson division of the Chicago and Alton railroad forms a junction with the main line in the n.w. section, and its county seat is the s.w. terminus of the Chicago and Alton railroad on the Indianapolis and St. Louis, and the St. Louis, Rock Island and Chicago railroad. It produces every variety of grain, tobacco, wool, sweet-potatoes, sorghum, and the products of the dairy. Its manufacturing product in '70 was \$4,794,490. There are flour and lumber mills, carriage factories, plow factories, bell factories, cigar factories, breweries, foundries, woolen-mills, distilleries, manufactories of church organs, and brick-yards. Lime is manufactured; also cement, agricultural implements, plug tobacco, tin, copper, and sheet-iron ware. It had in '70, 15 coal mines. Seat of justice, Edwardsville.

MADISON, a co. in e. Indiana, drained by Fall creek, Pipe creek, and the head waters of the East and West Forks of White river; 475 sq.m.; pop. '80, 27,531—26,877 of American birth. It is traversed by the Cleveland, Columbus, Cincinnati and Indianapolis railroad; the Columbus, Chicago and Indiana Central; the Lafayette, Muncie and Bloomington; the Pittsburg, Cincinnati and St. Louis; and the Cincinnati, Wabash and Michigan, with junctions at Alexandria, Elwood, and Anderson. Its county seat is the terminus of the Anderson, Lebanon and St. Louis railroad. Its surface is generally level, and partially covered with a dense growth of building timber. Its soil is calcareous and very fertile, producing buckwheat, barley, oats, rye, wheat, tobacco, wool, wine, fruit, sorghum, and maple sugar. It produced in '70, 1,028,150 bushels of corn, and 12,110 lbs. of honey. Its extensive water power is utilized by flour, lumber mills, etc., and among its manufactures are carriages, staves and headings, chairs, engines, furniture, sashes and blinds, agricultural implements, saddlery and harness, and woolen goods. It had in '70, 127 manufacturing establishments, employing 446 hands, with a capital of \$377,807, and an annual product of \$829,250. Cash value of farms in '70, \$9,399,441, numbering 2,288. Value of live stock in '70, \$1,229,996. Limestone is quarried. Seat of justice, Anderson.

MADISON, a co. in central Iowa, drained by Middle river, and other branches of the river Des Moines, and by the head waters of the Grand river; 576 sq.m.; pop. '80, 17,225—16,460 of American birth, 11 colored. Its surface is rolling, with a large proportion of fertile prairie, much tillable bottom land, and excellent grazing country, containing beds of bituminous coal. Its products are fruit, and all kinds of grain, tobacco, wool, dairy products, hops, flax, maple sugar, sorghum, and honey. Among its manufactories are woolen-mills, grist-mills, and plow factories. The Chicago, Rock Island and Pacific railroad forms a portion of its n.w. boundary, and the Indianola and Winterset branch of that road terminates at its county seat. Seat of justice, Winterset.

MADISON, a co. in e. Kentucky, having the Kentucky river for its n. boundary; drained by Silver creek and other streams; 450 sq.m.; pop. '80, 22,051—21,936 of American birth, 7,290 colored. Its surface is uneven and thinly timbered. Its calcareous soil is suited to the raising of cattle, sheep, and swine, every kind of grain, tobacco, wool, sweet-potatoes, sorghum, and maple sugar. It produced in '70, 5,835 galls. of wine, and 4,715 lbs. of honey. Cash value of farms in '70, \$8,981,032, numbering 1,592. Value of live stock in '70, \$1,948,277. It had in '70, 103 manufacturing establishments, employing 302 hands, with a capital of \$286,375, and an annual product of \$707,169; consisting of flour and saw mills, woolen-mills, manufactories of stone ware, of carriages and wagons, of saddlery and harness, plow factories, and distilleries. Seat of justice, Richmond.

MADISON, a parish in n.e. Louisiana, having the Mississippi river for its e. boundary separating it from the state of Mississippi, and the navigable Tensas river, a confluence of the latter, for its w. boundary; also drained by the Macon bayou; 600 sq.m., pop. '80, 13,908—13,754 of American birth, 12,657 colored. Its surface is mostly level and low, with large forests of cypress and the kinds of trees generally found in the gulf states. The alluvial soil along the water courses is very fertile, and produces corn, cotton, and sweet-potatoes. Cash value of farms in '70, \$1,757,403, numbering 1,543. Value of live stock in '70, \$355,598. It is intersected centrally by the Vicksburg, Shreveport and Texas railroad. Seat of justice, Delta.

MADISON, a co. in central Mississippi, having the Big Black river for its s.w., w., and n.w. boundary, and the Pearl river for its e., s.e., and n.e. boundary; intersected centrally by the Chicago, St. Louis and New Orleans railroad; 650 sq.m.; pop. '80, 25,866—25,672 of American birth. Its surface is composed of fertile prairies extending on all sides into rich plains, dotted here and there with groves of timber, growing on the fine bottom land of the river banks. Its county seat is a thriving cotton mart. Its soil is adapted to the raising of cattle and sheep, and produces, tobacco, cotton, wool, sweet-potatoes, the products of the dairy, oats, corn, and wheat. It produced in '70, 5,786 lbs. of honey. Cash value of farms in '70, \$2,907,357, numbering 704. Value of live stock in '70, \$840,606. Seat of justice, Canton.

MADISON, a co. in s.e. Missouri, drained by Castor creek and the head waters of the St. Francis river; intersected in the n.e. portion by the St. Louis, Iron Mountain and Southern railroad; 440 sq.m.; pop. '80, 8,860—8,506 of American birth, 308 colored. Its surface is hilly and well timbered, with a foundation of limestone, and containing beds of iron and lead ore, nickel, copper, gold, platinum, and silver. Its soil is adapted to the production of live stock, fruit, every variety of grain, tobacco, wool, sweet-potatoes, dairy products, honey, maple sugar, and sorghum. It had in '70 an annual manufacturing product of \$77,785. It has steam flouring mills, breweries, lumber mills, railroad repair-shops, and smelting furnaces. Its lead mines in the extreme n.e. section have been worked for more than 100 years, and in the vicinity cobalt, malachite, and other minerals are found. Seat of justice, Fredericktown.

MADISON, a co. in s.w. Montana, having a range of the Rocky mountains for its s. boundary separating it from Idaho; drained in the e. portion by the Madison river running n., in the w. by the Beaver Head, Wisdom, and Passamari creeks which unite to form the Jefferson fork of the Missouri; about 5,100 sq.m.; pop. '80, 3,916—2,890 of American birth, 294 colored. It is a fine agricultural and rich mining district, and an excellent grazing country. The mountains, deep divides, and cañons present scenery of great beauty and grandeur. It is in close proximity to the national park and the valley of the Yellowstone river. Groves of evergreen trees grow on the foot-hills and along the river bottoms. The agricultural products of its valleys are barley, oats, rye, wheat, and live stock. Its principal industries are hydraulic, placer, and quartz mining; and in '70, it had 15 hydraulic gold mines, 10 placer mines, and 8 quartz mines. Whole number of hands employed 219, aggregate capital \$672,800, with an annual product of \$216,416. Valuable silver mines are found near the Madison river, and are still attracting prospecting parties. Granite and silurian limestone underlie this region, and basalt, feldspar, gneiss, galena, and serpentine are found; also, in the vicinity of the county seat, hot springs with valuable medicinal properties. In the extreme s.e. is Sawtelle's peak, an extinct volcano composed of porphyry, basalt, etc. With the exception of the Utah Northern railroad, extending some distance n. of Red Rock in the s. portion, the transportation is by wagon and coach over roads along the mountain side built at great expense; and the vast amount of freight following the progress of the railroad proves the rapid settlement of the country. Seat of justice, Virginia City.

MADISON, a co. in w. North Carolina, having the Iron or Great Smoky mountains for its n. boundary separating it from Tennessee, is watered by the French Broad river; 450 sq.m.; pop. '80, 12,810—12,798 of American birth, 457 colored. Its surface is hilly and principally covered with a thick growth of timber. It contains mineral deposits of great value. Its soil is adapted to the raising of live stock, tobacco, buckwheat, oats, corn, rye, wheat, wool, sugar-cane, flax, sweet potatoes, and the products of the dairy. It produced in '70, 20,209 lbs. of honey. Its scenery presents many attractive features, notably where the French Broad river flows through a gorge of the Smoky mountains, near the celebrated Warm springs of North Carolina, and the slopes of Bald mountain rise in the extreme n.e., 5,552 ft. above the level of the sea. Seat of justice, Marshall.

MADISON, a co. in n.e. Nebraska, drained by the Elkhorn river and its north branch in the n. section, and by Taylor creek in the s.; 576 sq.m.; pop. '80, 5,539—4,136 of American birth, 6 colored. Its surface is rolling and thinly timbered. Its soil is adapted to stock raising and the production of grain, wool, dairy products, and sorghum. Its water-power is utilized to some extent, and it has a U. S. land agency. Seat of justice, Madison.

MADISON, a co. in s.w. Ohio, drained by Paint creek, Deer creek, Darby creek, and other tributaries of the Scioto river; 440 sq.m.; pop. '80, 20,129—18,841 of American birth, 1078 colored. Its surface is generally level and thinly timbered. Its soil is suited to the raising of tobacco, wool, wine, dairy products, fruit, sorghum, flax, hops, and all kinds of grain. It produced in '70, 11,683 lbs. of honey. Cash value of farms in '70, \$10,713,942, numbering 1263. Value of live stock in '70, \$1,644,404. It is traversed by the Cincinnati, Sandusky and Cleveland, the Pittsburg, Cincinnati and St. Louis railroads, the Little Miami railroad, and the Springfield Southern. Flour and carriages and wagons are manufactured. It had in '70, 117 establishments, employing 328 hands, with a capital of \$175,316 and an annual product of \$405,806. Seat of justice, London.

MADISON, a co. in central New York, having Oneida lake, 20 m. long and 6 m. wide, for its n. boundary; drained by Oneida creek, the Chenango river, the Unadilla river on its s.e. border, the Chittenango river on the s.w., and the Canastota emptying into Oneida lake; also by Cazenovia lake, 3 m. long, in the w. section; 650 sq.m.; pop. '80, 44,372. Its surface is low and uneven, well wooded, in some portions swampy, in others sinking into deep, narrow valleys. Sugar-maple, ash, and oak trees grow in profusion. Its soil has an underlying formation of Niagara limestone and Onondaga limestone, and stone which is quarried for building purposes. Gypsum and water-lime are found, and saline sulphur springs. Hops are exported, the yield in '70 being 3,232,925 lbs. Its productions include every variety of grain, tobacco, maple-sugar, wool, Irish potatoes, and an enormous dairy product. It produced in '70, 8,389 lbs. of

honey. Cash value of farms in '70, \$26,568,018, numbering 4,140. It had in '70, 736 manufacturing establishments, employing 2,488 hands, with a capital of \$2,149,286, and an annual product of \$4,798,371. Its leading industries are the manufacture of carriages, wagons, flour, brick, cheese, leather, agricultural implements, lumber, cooperage, steam engines, optical and astronomical instruments, pocket cutlery, boxes, furniture, water-lime, lime, cotton, silk, and woolen goods, ship-building and repairing. It has distilleries, foundries, and knitting-mills. It is intersected by the New York Central and Hudson River railroad and the Utica, Clinton and Binghamton, with their branches, the Cazenovia, Canastota and De Ruyter railroad; the Erie canal and the Chenango canal, connecting Utica with Binghamton, following the course of the Chenango river in the s.e. section. Seat of justice, Morrisville.

MADISON, a co. in w. Tennessee, intersected centrally by the Chicago, St. Louis and New Orleans, and the Mobile and Ohio railroads, forming a junction at Jackson; watered by the Middle fork of Forked Deer river, forming its n. boundary; 600 sq.m.; pop. '80, 30,874—30,632 of American birth, 15,465 colored. It is drained by the South fork, flowing diagonally through it, and its generally level surface is well wooded with groves of the tulip tree, beech, and ash, and forests of oak, hickory, and walnut. Its soil is fertile, producing oats, corn, rye, wheat, cotton, wool, sweet potatoes, dairy products, and honey. Cash value of farms in '70, \$3,953,675, numbering 1547. Value of live stock, \$956,719. Cotton is exported. Among its manufacturing establishments are tanneries, iron foundries, and railroad repair shops, flour and lumber mills, numbering in '70, 107, employing 392 hands, with a capital of \$137,265, and an annual product of \$370,022. Seat of justice, Jackson.

MADISON, a co. in s.e. Texas, having the Trinity river for its e. boundary, and the Navasota river for its w., is drained by numerous rivulets emptying into them; 550 sq.m.; pop. '80, 5,395—5,351 of American birth, 1703 colored. Its surface is undulating and well wooded with oak, pine, and other building timber. Its soil is fertile; products are live stock, corn, tobacco, cotton, wool, sweet potatoes, wine, honey, and sorghum. Seat of justice, Madisonville.

MADISON, a co. in n. Virginia, having the Blue Ridge mountains for its n.w. boundary, is bounded on the s., s.e., and s.w. by the Rapidan river, and drained by Oriskany creek and Robertson's and Hazel rivers; 280 sq.m.; pop. '80, 10,562—10,551 of American birth, 4,557 colored. Its surface is mountainous, and presents features of great natural beauty, attracting many tourists. A large proportion of the land is covered with forests of hard wood. Its soil is fertile in some sections, and produces live stock, hops, tobacco, wool, sweet potatoes, dairy products, honey, sorghum, oats, corn, rye, and wheat. Cash value of farms in '70, \$1,753,087, numbering 489. It had in '70, 42 manufacturing establishments, employing 85 hands, with a capital of \$35,950 and an annual product of \$108,960; represented by cheese factories, tanneries, etc. Seat of justice, Madison Court-House.

MADISON (*ante*), a city in s.e. Indiana, the terminus of one branch of the Jeffersonville, Madison and Indianapolis railroad; pop. '70, 10,709. It is delightfully located 45 m. n. of Louisville, 86 m. s.e. of Indianapolis, and 45 m. s.e. of Columbus. The hills at the n. are 400 ft. high, overlooking the valley 3 m. in length. It is regularly and substantially built, lighted with gas, and abundantly supplied with water by an aqueduct. Its brick-yards furnish a large proportion of the building material. It has several public halls, a public library of 4,000 vols., excellent public schools, 2 national banks and a state bank, with an aggregate capital of \$650,000. It supports 1 daily, 1 semi-weekly, and 2 weekly newspapers, and is accommodated by a daily line of steamers plying between its port and Cincinnati and Louisville. Its leading industries are represented by manufactories of engines and boilers, furniture, breweries, ship-yards, brass and iron foundries, and planing mills.

MADISON (*ante*), a city, the capital of Wisconsin, the junction of the Chicago and North-western railroad, and the Watertown to Madison, and the Madison to Portage branches of the Chicago, Milwaukee and St. Paul railroad. It is the e. terminus of the railway to Prairie Du Chien, an important local shipping point; this railroad being the connecting-link between the Wisconsin and Iowa divisions of the Chicago and North-western railway. Lying in the Four Lake country, the land on which it is built, between lake Mendota and lake Monona, 132 m. n.w. of Chicago, and 80 m. w. of Milwaukee, rises to an elevation of 788 ft. above the level of the sea, and 210 ft. above lake Michigan, and is about $\frac{3}{4}$ of a m. in breadth, and 3 m. in length; pop. '80, 10,325. Surrounding this plain are heights from which it is distinctly visible miles away. Lake Mendota on the n.w. border, with a depth of water estimated at 70 ft., is 9 m. in length and 6 m. in width, has a smooth, hard beach, and is navigated by excursion steamboats, from whose decks the most delightful views may be obtained. Lake Monona on the s.e., $5\frac{1}{2}$ m. long and 2 m. wide, is connected by narrow straits with lakes Waubesa and Kegonsa, each about 3 m. long, and by straits farther s. flowing from these into the Fourth lake, forming a chain of beautiful lakes for a distance of 16 miles. The state-house is a stone edifice, with recent improvements costing \$550,000, in height 200 ft., standing on a plateau 70 ft. above the water-level, surrounded by a beautiful park of 14 acres, shaded

by forest trees left standing when the town was laid out, the foundation of the capitol being laid the following year. The county court-house and jail occupy the s. corner of the park. Westward from this point is College hill about 1 m. distant, 125 ft. above the lake, the site of the university of Wisconsin, open to both sexes. The city has 14 churches, a commercial college, a stereotype foundry, flour and woolen mills, wagon and carriage factories, manufactories of agricultural implements, reapers, mowing-machines, etc. It has a number of fine buildings for purposes of trade, and many elegant private residences in the suburbs. It is a popular summer resort, and its air is recommended as a palliative in diseases of the lungs. The state institution for medical treatment of the insane, 569 ft. in length, occupies an estate of 393 acres of forest, farm, and ornamental garden on the shores of lake Mendota, about 4 m. from the center of the city. The U. S. court-house and post-office here cost \$400,000. It has excellent public schools, and several public libraries, among them the state library, of 7,500 vols.; that of the Wisconsin historical society, in a wing of the capitol, 58,000 vols., and a valuable collection of curiosities; those of the university of Wisconsin and its societies, 6,830 vols.; that belonging to the Madison institute, 3,500 vols.; and the state agricultural society library of 1000 volumes. About 1 m. from the capitol is the soldiers' orphans' home, on the shore of lake Monona.

MADISON, a village in n. Georgia, a shipping point for cotton, 104 m. w. of Augusta, 68 m. s.e. of Atlanta, and 175 m. w. of Savannah; pop. '70, 1389—770 colored. It is pleasantly situated on the Central railroad of Georgia, is the largest town between Atlanta and Augusta, and is rapidly increasing in population and business. It is the seat of justice of Morgan co., and has an active trade in cotton, the surrounding country being one of the most productive sections of the state. It is the seat of Georgia female college, established in 1850, an institution controlled by the Baptist denomination.

MADISON, a t. in Morris co., N. J., 17 m. w. of Newark, on the Morris and Essex division of the Delaware, Lackawanna and Western railroad. Its location is healthful and picturesque. It contains a classical institute, a Roman Catholic convent, 5 churches—the oldest of which is the Presbyterian, organized about the middle of the last century—and Drew theological seminary, established 1867, named after its founder, the late Daniel Drew of New York, and occupying what was formerly the Gibbon estate, containing about 100 acres, highly ornamented with walks and drives, shrubbery, and forest grove. The buildings are Mead hall—formerly the mansion-house of the estate—containing the chapel, reading-room, library, lecture rooms, and offices of the professors; Asbury hall, containing 72 rooms for students; Embury hall, containing a dining-room; Society hall, apartments for the matron, and 20 rooms for students; and 5 residences for the president and professors. The faculty are the president, who is also professor of historical theology, and 5 other professors. In addition to the systematic instruction thus furnished, special lectures on collateral topics are given by a large corps of representative men annually appointed. The number of students in 1880 was 104. The library contains 10,000 vols., carefully selected with special reference to the wants of students for the ministry; and in addition to these the libraries of the professors, amounting in the aggregate to about an equal number of volumes, are accessible to the students, under proper restrictions. The large endowment originally designed for the institution by the founder having been, in part, lost by his subsequent pecuniary misfortunes, successful efforts are in progress to make up the full amount by more general benefactions. The location of the seminary makes it the central theological school of the Methodist-Episcopal church, whose zeal, wisdom, and wealth may be relied on to secure for it the highest degree of permanent efficiency in the great work for which it has been established.

MADISON, JAMES (*ante*). The public life and works of James Madison fill a long period of American history, and are marked by a precocity of statesmanship, and calm, logical, judicial wisdom. At 21 years, a graduate of Princeton college, among a class of students who subsequently filled many of the highest judicial, political, and military offices, he appears from the beginning to have taken that intellectual leadership which he subsequently maintained. The exciting period of the opening of the revolution stimulated all young men of noble ambition to the study of the relationship of governors to the governed and of human rights in general; so that political discussions were on the fundamental laws of society in the broad fields of abstract justice, rather than in the ruts of partisan warfare and individual interests. The violence of arbitrary power which England exercised towards the colonies at this time, and the debates in the British parliament in which Chatham, Camden, Burke, and Fox assumed the defense of constitutional against arbitrary power, in opposition to lord North, Mansfield, and others, were calculated to place before the students of that day high ideals of political warfare. The vigorous pen of the masked Junius was a model of style for the more fiery patriots. That of Addison seems to have attracted young Madison, or, rather, his mind was by nature on the philosophic plane, so that it naturally expressed itself in a similar style. The following letter written from college to his father, July 23, 1770, indicates, however, that his mind was fired by the lack of patriotic resistance to British rule of which the merchants of New York had just given proof: "We have no public news," he writes, "but of the base conduct of the New York merchants in breaking

through their spirited resolution not to import," etc. . . . "Their letter to the merchants of Philadelphia requesting their concurrence was lately burned by the students in the college yard, all of them appearing in their black gowns, and the bell tolling. There are about 115 in college and school, all of them in American cloth." On his return home from college he read law and miscellaneous literature, and at the same time taught his younger brothers and sisters. A lull took place in the controversy between the colonies and the mother country in consequence of the repeal of the stamp act and port duties, the tax on tea being the only one left; the repeal of which, said Lord North, "is not to be thought of till America is prostrate at our feet." An extract of a letter written in 1772 to his college friend Bradford, afterwards attorney-general under the presidency of Washington, shows the grave maturity of his mind: "Pray do not suffer those impertinent fops that abound in every city to divert you from your business and philosophical amusements. You may please them more by admitting them to the pleasure of your company, but you will make them respect and admire you more by showing your indignation at their follies, and by keeping them at a distance. I am luckily out of the way of such troubles; but I learn you are surrounded with them, for they breed in towns and populous places as naturally as flies do in the shambles, because they get food enough for their vanity and impertinence." About this time Madison studied, exhausting the theological works of his time, and the Jewish and Christian Scriptures, and so erudite was he already considered that the founder of the university of Virginia called upon him to furnish a list of theological works for its library. When the question arose in Virginia, in 1774, whether the state church (the church of England) should be maintained, his breadth of view became manifest. The Episcopalians of Virginia and the Puritans of New England were quite ready to practice against others the same exclusion for religious opinions which had caused the migration of the latter. In Virginia the Episcopal had been a state church, and laws were in force to punish non-conformity. The Baptists were at that time the subjects of the penalties and were then being imprisoned in the county where Madison lived, for "disturbing the public peace by their preaching." In a letter to Bradford, Jan. 24, 1774, Madison shows the intensity of his indignation at this renewal of religious persecution in words contrasting with his usual moderation: "That diabolical, hell-conceived principle of persecution," he writes, "rages among some; and to their eternal infamy, the clergy can furnish their quota of imps for such purposes." Again, writing to Bradford in April he says: "The sentiments of our people of fortune and fashion on this subject are vastly different from what you have been used to. That liberal, catholic, and equitable way of thinking, as to the rights of conscience, which is one of the characteristics of a free people and so strongly marks the people of your province (Pennsylvania), is but little known among the zealous adherents to our hierarchy."

The year 1774 was an exciting one in the colonies. New forms of oppression by the English government raised determined resistance from Boston to Charleston. Madison entered into the struggle in no half-way spirit, but seemed fully to appreciate from the beginning the necessity of speedy military organization to oppose the mother country. As early as Jan. 20, 1775, he writes a friend: "We are very busy at present in raising men, and procuring the necessaries to defend ourselves and our friends in case of a sudden invasion." In an address of thanks to Patrick Henry, written by Madison as the expression of a public meeting held in his own county May 9, 1775, we find this expression: "The blow struck in the Massachusetts government is a hostile attack on this and every other colony, and a sufficient warrant to use violence and reprisal in all cases in which it may be expedient for our security and welfare." Mr. Madison entered public life in May, 1776, as a delegate to the Virginia convention which instructed her delegates in the continental congress to propose the declaration of independence. Though the youngest man in that body, he was by special request made a member of the committee of ten to draft a new constitution for the state. In the committee Mr. Madison distinguished himself by opposing the use of the following phrase of an article on religion, designed to secure freedom of worship: "*toleration* in the exercise of religion, . . . unpunished and unrestrained by the magistrate, unless under color of religion any man disturb the peace, the happiness, or the safety of society," as a dangerous form of guaranty of religious freedom. Toleration, he maintained, belonged to a system where there was an established church, and where it was a thing granted not of right, but of grace. He feared the power, in the hands of a dominant religion, to construe what "may disturb the peace, the happiness, or the safety of society," and ventured to propose a substitute, which was finally adopted. It marks an era in legislative history; and is believed to be the first provision ever embodied in any constitution or law for the security of absolute equality before the law to all religious opinions. We give it entire: "That religion, or the duty that we owe to our creator, and the manner of discharging it, being under the direction of reason and conviction only, not of violence or compulsion, all men are equally entitled to the full and free exercise of it, according to the dictates of conscience; and, therefore, that no man or class of men ought, on account of religion, to be invested with peculiar emoluments or privileges, nor subjected to any penalties or disabilities, unless, under color of religion, the preservation of equal liberty, and the existence of the state be manifestly endangered."

At the first session of the Virginia legislature under the new constitution, beginning

in Oct., 1776, Madison and Jefferson first met, and began an intimate friendship that lasted unclouded for half a century. Jefferson long afterwards thus describes him: "Mr. Madison came into the house in 1776, a new member and young; which circumstances, concurring with his extreme modesty, prevented his venturing himself in debate before his removal to the council of state in Nov., 1777. From thence he went to congress, consisting of few members. Trained in these successive schools, he acquired a habit of self-possession, which placed at ready command the rich resources of his luminous and discriminating mind and of his extensive information, and rendered him the first of every assembly afterwards of which he became a member. Never wandering from his subject in vain declamation, but pursuing it closely, in language pure, classical, and copious, soothing always his adversaries by civilities and softness of expression, he rose to the eminent station which he held in the great national convention of 1787. With these consummate powers was united a pure and spotless virtue which no calumny has ever attempted to sully."

In 1777 Madison lost his election by his conscientious abstention from the practice of "treating" on election day. But in November the assembly elected him a member of the council of state, a body of eight members, advisers of the governor, and participating with him in the exercise of executive powers. Chosen to this high position without his own knowledge, the compliment was not more appreciated by him than timely to the state, and a position of more importance during the crisis of war than one in legislative councils. The fact that Madison was the only member of the council versed in foreign languages made his services of additional value to the governor, Patrick Henry; as the number of foreigners in the employ of the state at that time was numerous.

It is told by him that the democratic sentiments of gov. Henry, as well as his own, were a little tried by the custom of French officers to address the governor as his royal highness monsieur Patrick Henry. On one occasion having to explain to a French officer why power was given to the presiding officer of the delegates to preserve order according to rules established for that purpose, the officer exclaimed, "Ah! I understand you at last; he is a prince of the blood!" In 1779, Jefferson having succeeded Henry as governor of Virginia, Madison was re-elected to the council, but on Dec. 14 the Virginia assembly chose him to represent the state in the congress of the confederation, where he took his seat Mar. 20, 1780. It was the most gloomy period of the revolution. The country was without means or credit to feed the army; the continental money was nearly valueless, and there was nothing yet to take its place; the military situation most discouraging. The arrival of Lafayette, with news of the French fleet and army on its way, momentarily vivified the hope of the nation. But new reverses and the treachery of Arnold almost extinguished them. Mr. Madison had the sagacity to perceive that a better system of money was the radical need. Washington had advised requisitions on the several states for provisions and stores for his army to be furnished direct, in order to stop continental emissions of paper money for their purchase; but the states proceeded to purchase the required articles with their own paper money, thus aggravating the evil which he was hoping to lessen. Madison proposed that congress should address a formal recommendation to the states to discontinue these emissions. His proposition met with a cool reception, not because the recommendation was not approved, but because congress could with ill grace urge the states to abandon a means which itself had continuously employed. About this time efforts were being made by France and the United States to induce Spain to join the alliance against England. Spain required the abandonment of the right of navigation of the Mississippi to the sea as a condition precedent. Madison was made chairman of a committee to draw up the argument on behalf of the United States to be used as the basis of negotiations by Mr. Jay, our minister at Madrid, and Mr. Franklin our minister to France. The argument was unanimously adopted by congress. It is a curious fact that two of the oldest and most sagacious of American statesmen should thus receive their instructions from the most youthful and modest member of the congress. Madison's argument is a masterpiece of ability and discretion, but congress receded from its position. Spain's alliance was sought by the offer of the concession; but through the wisdom of Jay, fully seconding the views of Madison, no formal treaty to that effect was made.

After the capitulation of Yorktown in Oct., 1781, Madison was still strenuous that the government should not relax its preparations for the vigorous prosecution of the war; and secured action by congress to that end. At the same time he urged an amendment to the articles of the confederation, which should expressly grant to congress authority to employ the force of the union against the states in such manner as to force them to fulfill their engagements to it. In a letter to Jefferson, April 16, 1781, he thus alludes to the subject: "The necessity of arming congress with *coercive* * powers arises from the shameful deficiencies of some of the states," etc. The letter entire is an admirable statement of the evils of a confederacy that has not the unity of power of a nation. It was not until the beginning of 1781 that the states were asked to vest in congress the power to levy duties on imports. On May 14, 1782, Madison in a letter to Randolph of Virginia gave intelligence of the arrival at New York of a bearer of peace-propositions from England. After reviewing the probable intent of the acts of the British parliament, he

* Italics are in Madison's letter.

concludes: "Congress will, I am persuaded, give a proper verbal answer to any overtures with which he may insult them; but the best answer will come from the states, in such supplies of men and money as will expel our enemies from the United States."

After the recognition of the independence of the United States in 1782, Madison took a conspicuous part in every important legislation of congress; urged a system of national revenue; was principal author of the plan adopted April 18, 1783; and author of the address to the states urging its adoption, which, "for lucid exposition, pregnant conciseness and precision, dignity, eloquence, and force, will ever stand among the model state papers of America." It was in the preparation of this act of congress, and of the address which followed, that the opposition of Alexander Hamilton developed that great antagonism of principles and policy which, a few years later, became the basis of the opposing political organizations of the United States. Madison was the principal promoter of the cession of the north-western territories by Virginia to the United States on March 1, 1784. Vermont was, in 1784, to be admitted as an independent state. No provision had been made in the articles of confederation for the admission of new states. All lands outside the colonies, within the limits of the United States, were supposed to belong to one or another of the colonies. But the cession of Virginia's vast claims to the nation, and the denial of the Vermonters that their territory belonged either to the New York or the New Hampshire grants, opened new questions. Madison opposed the admission at this time and postponed it until the new constitution of 1787 was established. During this session congress entered on the difficult task of paying debts and harmonizing conflicting interests of states. The great state of Virginia was not able to pay its representatives in congress, and Madison was obliged to depend on his father in part for his support, and to have recourse to meet even the simple style of living that he always maintained, to "the favor," as he himself expresses it, "of Haym Salomon, a Jew broker." He returned to his father's residence Dec., 1783; and being ineligible to a continued seat in congress by Virginia's constitution he became an assiduous student of law. "My wish is" he wrote to a friend, "to provide a decent and independent subsistence without encountering the difficulties I foresee in that line. Another of my wishes is to depend as little as possible on the labor of slaves." In April, 1784, he was elected to the Virginia house of delegates. The leading idea of his service there he stated to be to harmonize the state legislation with the necessary assumption of powers required by the federal congress for its efficiency as a government of the United States. He was made chairman of the committee on commerce, of the committee to revise the constitution, and the "committee of religion." In all these he had occasion to imprint on the laws his peculiarly advanced statesmanship. In August, 1784, he met in Baltimore Lafayette, who was then on a visit of congratulation to his American friends, and they joined company in a journey to Ft. Schuyler, where a treaty with the Indians was to be made. Soon after the close of the second session of the Virginia assembly, Madison had another occasion to mark his influence in securing the disseverance of church and state, by exhaustive arguments in opposition to a pressure of petitions for "an assessment for the support of religion," which opposition he embodied in a remonstrance, and so aroused public opinion to its importance that when the bill was taken up the succeeding session it was overwhelmingly negatived. In 1785 Madison resumed his studies at home for a short time; made a visit to New York and the eastern states; to gen. Washington at Mt. Vernon; and returned to duty in the house of delegates in October, where he soon afterwards made a memorable speech to prove that the congress of the confederation should have sole jurisdiction over foreign and domestic commerce in the levying of import or export duties. At this session Madison bore the brunt of the laborious work of codifying the laws of Virginia. On returning to his home he added natural history to the list of studies which he entered upon with ardor, and at the same time pursued farther than before his studies in the philosophical speculations at that time the fashion among great minds, particularly in France. During 1786 he was an active participant in a politico-commercial convention assembled at Annapolis; opposed the project of Mr. Jay to surrender the navigation of the Mississippi to Spain; and re-entered the Virginia legislature in October. Its first work, of which he was one of the authors, was the passage of an act recommending the assembling of a convention of all the states for the formation of a new constitution for the United States. In this convention his thorough preparations for statesmanship became conspicuous. He completed and published papers, long in preparation, on *Ancient and Modern Confederacies; Vices of the Political System of the United States*, etc.; designed to light the way of the convention. He was sent as one of the delegates to that convention, associated with George Washington, Patrick Henry, Edmund Randolph, John Blair, George Mason, and George Wythe. In a letter to gen. Washington, April 16, 1787, he outlines his views at length of the future constitution: "Considering that an individual independence of the states is totally irreconcilable with their aggregate sovereignty, and that a consolidation of the whole would be as inexpedient as it is unattainable, I have sought for some middle ground, which may at once support a due supremacy of the national authority, and not exclude the local authorities wherever they may be subordinately useful. . . . An article should be inserted, expressly guaranteeing the tranquillity of the states against internal as well as external dangers. In like manner, the right of coercion should be expressly declared." It is doubtful if

there ever convened an abler body of statesmen than met in the convention to frame the constitution of the United States, which opened in Philadelphia, May 14, 1787. Mr. Madison, if not the most conspicuous, was, by the volume of his labors, and his success in fixing his own views of government in the constitution, certainly the leading member, and it is in this sense that, young as he was compared with most of his associates, he acquired the title of "father of the constitution."

From the labors of the constitutional convention Madison repaired immediately to the federal confederate congress then sitting in New York, where he found strenuous opposition to the new instrument by Richard Henry Lee of Virginia and Nathan Dane of Massachusetts. Triumphant over these, his party in the congress secured a unanimous vote of that body to submit the constitution to the action of the several states. The various forms of opposition to it were met at the outset by a series of essays suggested by Alexander Hamilton and John Jay, in which Madison was invited to join, published over the signature of "Publius," first in a New York paper, but afterward as a distinct issue under the title of *The Federalist*. It grew under the hands of these gentlemen into one of the ablest compendiums of political thought ever published; finally comprising 85 essays, of which 51 were by Hamilton, 29 by Madison, and 5 by Jay. Judge Story in his treatise on the constitution styles it "an incomparable commentary." After eight states had voted their approval of the new constitution it only remained for the ninth to affirm it to secure its adoption. Virginia became the battle ground. A large part of her most eminent citizens took side against its adoption. Madison, at the urgent request of Washington, became a candidate for a seat in the Virginia convention called to take action upon it. The eloquence of Patrick Henry, and his tact in popular persuasion, was met in that convention by gov. Randolph in part, but more thoroughly and comprehensively by Madison; who, by his lucid reasoning, apt citations from his stores of historical knowledge, and masterly review of the errors of the opposition, turned the tide of opinion in the convention. In the language of Bushrod Washington, who had listened to the debate, to gen. Washington, "Mr. Madison followed, and with such force of reasoning, and a display of such irresistible truths, that opposition seemed to have quitted the field." Yet the forensic battle raged for many weeks; Madison making in one day thirteen speeches in reply to Henry, Mason, Harrison, Monroe, and other brilliant leaders of the opposition. Voices of wisdom prevailed against voices of eloquence; and on June 24, 1788, Virginia ratified the constitution by the slender majority of 89 to 79. Chief justice Marshall being once asked who of all the public speakers he had heard he considered the most eloquent—and he had heard all the illustrious of his time—replied: "Eloquence has been defined to be the art of persuasion. If it includes persuasion by convincing, Mr. Madison was the most eloquent man I ever heard."

New York had not yet given its consent to the new constitution, and under the leadership of gov. Clinton continued to refuse it except under impracticable conditions, one of which was *the reservation of a right to withdraw from the union* if the amendments proposed by her should not be adopted within a limited period. Madison in a letter to Alexander Hamilton at this time writes his unqualified repugnance to all propositions of the kind, and regarded such a conditional ratification as worse than a rejection. At the request of gen. Washington he became a candidate for the new national senate under the constitution; but Richard Henry Lee of the opposition was supported by gov. Henry, and elected; after which Madison was elected from his own district to the house of representatives in congress, in spite of the formation of a district, by the legislature under the control of gov. Henry, for the express purpose of insuring his defeat.

On April 8, 1789, after the assembling of congress in New York and the inaugural address of Washington, Madison presented the first act under the new constitution, for the collection of revenues. This was followed by an act to levy tonnage duties on vessels of nations not having reciprocal commercial treaties with the United States, and especially designed to meet the hostile legislation of England, which had haughtily refused to enter into such treaty, and had excluded the vessels of this country from all trade with her West Indian colonies, admitting them to British ports only on special conditions; while up to this time British vessels had a monopoly of the foreign trade of America. He carried his measure, but against the determined opposition of the city of New York, which, being the capital, exercised an undue influence in the national legislation; and was, as Madison expresses it, "steeped in Anglicism." Early in the same session he brought in declaratory amendments of the constitution, in the nature of a bill of rights, to quiet apprehensions in the public mind which had given ground for much of the opposition to the constitution. On the re-assembling of congress in Jan., 1790, Madison's most conspicuous action was on the report of Hamilton, first secretary of the treasury, recommending the funding of the national debt. The secretary's report started lively speculation in the old state bonds and continental currency; the former being increased in value by their proposed assumption by the United States, and the latter resuscitated from no value to a certain low percentage of their face value. Madison advocated the payment of the domestic debt as equally obligatory as the foreign debt, but since it was impossible to pay the face value of the continental money in gold and silver, and the rate of valuation for payment had been agreed to, he could not consent that the speculators, who had bought these evidences of debt, should receive the whole,

and the holders who had parted with them when they were supposed to be valueless should have little or nothing. He puts the case in these words: "As" to pay in full "would far exceed the value received by the public it will not be expected by the creditors themselves. To reject the claims wholly is equally inadmissible. To make the other class (original holders) the sole victims was an idea at which human nature recoiled. A composition then is the only expedient that remains. Let it be a liberal one in favor of the present holders; let them have the highest price which has prevailed in the market; and let the residue belong to the original sufferers." As this position aroused, from those who held these papers, a storm of opposition in favor of the commercial rigor of exact fulfillment, without reference to whose hands those papers were in, he replied: "He must renounce every sentiment he had hitherto cherished, before his complaisance could admit that America ought to erect the monuments of her gratitude, not to those who saved her liberties, but to those who had enriched themselves in her funds."

Madison opposed the assumption of the states' debts by the general government, and three times secured the defeat of the proposition; but it was at last carried by a compromise with those who desired the capital located on the Potomac. During this session of congress the federalists and republicans became distinct parties, Alexander Hamilton being the leading spirit of the former, and James Madison the foremost parliamentarian of the latter.

At the close of this session it devolved upon Mr. Madison to announce to the house the death of Franklin, which was done in words of simplicity as felicitous as the character they commemorated. The result of the first session of the 1st congress in New York was to give the representatives of the southern states a feeling of uneasiness as to the power of New England and New York to control all legislation, in which Mr. Madison participated. In the beginning of the second session a bill for the incorporation of a national bank passed the senate. Madison opposed it in the house, argued its unconstitutionality, and united the southern states against it; but it was carried by the northern members. President Washington was in painful doubt whether to sign the bill. His attorney-general gave an elaborate opinion that it was unconstitutional. Jefferson was of the same opinion. Hamilton wrote an elaborate reply to prove its constitutionality. Washington requested Madison to reduce to writing the objections to the bill, with a view, it was supposed, to embody them in a veto; and Madison carefully prepared such a paper; but the president, at the last moment, signed the bill out of deference to the majorities which had passed it. Madison soon after opposed a congressional practice of calling on the heads of departments for their opinion; opposed again the assumption of the debts of the states; protested against the demoralizing effects of the banking and funding system of the secretary of the treasury; took spirited ground against the visitation of American ships by the British, and announced that the settled policy of law should be that "free ships make free goods." Washington, when his first term was near its close, requested Madison to prepare for him a valedictory address, which he did prepare; remonstrating with the former at the same time against his determination not to run for a second term. Washington did consent to a second election, and Madison's manuscript was preserved by him and included entire in his noble farewell address to the American people. In the third session of congress Madison made a vigorous criticism on the acts of Hamilton as secretary of the treasury in diverting public moneys, pledged to pay a debt to France, for the use of the national bank, to the discredit of the honor of the country; and, to a series of political articles written by Hamilton over the signature of "Pacificus," broaching doctrines as to the powers of the executive under the constitution, which Madison thought dangerous, he replied by a masterly series of five essays over the title of "Helvidius;" to which Hamilton made no reply. These were written from his father's farm after the close of the 2d congress. In the second session of the 3d congress Madison renewed his resolution for additional duties on the manufactures and shipping of those countries having no commercial treaties with the United States, being especially aimed to counteract the injurious effect of British discrimination against American commerce, embracing a specific retaliation for specific measures of hostile foreign legislation. This was not passed, but postponed till the next session, when new outrages on American commerce on the part of England called for the appointment of special commissioners to England. Towards the close of the session Madison reviewed the acts of congress in a pamphlet entitled *Political Observations*, now of great value.

In the recess of congress, on Sept. 15, 1794, Madison married Mrs. Dorothea Payne Todd, whose beauty, gracious tact, and kindness of heart and lively social qualities made her circle of admirers and her influence as extensive within her sphere, for the remainder of their lives, as her husband's; and as wife of the president, a few years later, she became the model of all the graces of life that adorn high stations.

The so-called whisky rebellion in Pennsylvania furnished Hamilton, secretary of the treasury, with an opportunity to invoke military force in its treatment, in a manner that indicated the tendency to the use of despotic force which was the characteristic of his statesmanship. Democratic societies had sprung up in the country somewhat in the intemperate style of the Jacobins of Paris. The federalists sought to obtain resolutions of condemnation by congress of these societies. Madison, while making no defense of

their spirit, made such lucid expositions of the danger of such a resolution that it was finally negatived. The increase of the standing army was vigorously pressed by the federalists; Madison opposed it but the federalists prevailed. In Aug., 1795, he protested against a treaty with England, which yielded the right of search of American vessels, and which he speaks of as adding "to the ruinous bargain with that nation a disqualification to make a good one with any other." In the last session of the 4th congress he bore a conspicuous part in a three weeks' discussion on the constitutional limits of the treaty-making and legislative powers. President Washington assumed a position with reference to this subject that Madison felt called upon to oppose, and in doing so carried more than two-thirds of the house of representatives in his support, and made the precedent for a participation by the legislative department in carrying treaties into effect which has since become a principle of our government. His service in the house of representatives ceased with the administration of Washington.

In the beginning of John Adams's administration, the passage of the alien and sedition laws by the dominant federal majority gave rise to vigorous protests from the state legislatures of Kentucky and Virginia. The latter are known in history as the resolutions of 1798-99, and were drawn by Madison, though he was not a member of the state legislature. They now stand among the highest authorities on constitutional construction. Animadversions upon these drew from Madison the following winter a report in which he fortifies the positions taken in the resolutions by a state paper of signal vigor of style and exhaustive analysis of the reason and philosophy of the resolutions. Though few of the states followed the bold stand of Virginia at this time, the act of congress which called out the resolutions speedily fell into disrepute, and the legal position assumed by Madison became, a few years later, the settled law of public opinion.

On the inauguration of Jefferson as president in 1801, Madison was made secretary of state, and retained this ministerial position during the whole eight years of Jefferson's administration. The harmony of his principles with those of the president produced a unity and ability of administration rarely continued for so long a period. It is, however, a curious illustration of the accident of events that during the whole time when gratitude, honor, and policy all required the most cordial relations to be maintained with France, and the most spirited opposition to the continued domineering policy of England, the federal policy had permitted a craven treaty to be made with the latter, and an offensive form of neutrality to be needlessly pushed in the face of our revolutionary ally; while now that the friends of that ally were in power, the tyrannous domination of Napoleon in the government of France had taken from our national sympathy its real object—to honor liberty and republicanism. At the close of Jefferson's term, Madison was the leading candidate of the republican party for his successor, and received in the electoral college 122 out of 175 votes. He was inaugurated president, Mar. 4, 1809. He made Roger Smith of Maryland secretary of state until April 2, 1811, when he was succeeded by James Monroe of Virginia; Albert Gallatin of Pennsylvania secretary of the treasury till Feb. 9, 1814, when he was succeeded by George W. Campbell of Tennessee; for secretary of war, William Eustis of Massachusetts till Jan. 13, 1813, when James Monroe acted as secretary of war, *ad interim*, till the appointment of W. H. Crawford, Mar. 3, 1815; for secretary of the navy, Paul Hamilton of South Carolina, till Jan. 12, 1813; succeeded by William Jones of Pennsylvania, till Dec. 17, 1814, and then by B. W. Crowninshield of Massachusetts; for postmaster-general, Gideon Granger of New York, succeeded by R. J. Meigs of Ohio; for attorney-general, successively, Caesar A. Rodney of Delaware, William Pinckney of Maryland, and Richard Rush of Pennsylvania. The continued arrogance of British claims and acts of interference with American commerce, the seizure and impressment of sailors from American merchant ships, had brought the United States to the verge of war with Great Britain when Madison's administration began. An embargo on British commerce was ordered, followed by a non-intercourse act of congress, prohibiting commerce with France or England until the British orders in council relating to seizure of neutral vessels and impressment of seamen should be repealed; and the decrees of the French emperor concerning the rights of neutrals should be rescinded. Embroilments between the British minister and the American secretary of state followed. Madison requested the recall of the obnoxious minister. The English government recalled him but sent no other in his place. In August the French emperor revoked the obnoxious commercial decree, and in November Madison issued a proclamation for the renewal of trade with France, and of non-intercourse with England. But Napoleon's irritating maritime practices continued; and the prospect was imminent that the national dignity would require a state of war with both England and France. Madison made every effort to preserve peace, and prepared for war. Congress appropriated \$1,000,000 for naval and military preparations. On June 1, 1812, he transmitted a special message to congress, reviewing the aggressions of Great Britain, and left it to the judgment of congress to declare war. It was done, and the president signed the declaration of war, June 18, 1812, and issued a proclamation to the people. June 23 following, Great Britain, before the news of the declaration had reached her government, repealed the most obnoxious of her orders in council. Monroe, secretary of state, before the British action could be known, submitted to the American minister in London terms of a proposition for an armistice to be suggested to the government. The London government refused the required concessions, and the

American minister returned home. Admiral Warren, of the British navy, was sent out to negotiate with the American government; but yielding no promise to stop the impressment of American seamen, the war began. In Feb., 1813, a British fleet was in Chesapeake bay, and the whole coast of the United States was declared in a state of blockade. Madison had been elected the autumn before for his second term as president, by a vote of 128 in the electoral college to 89 for De Witt Clinton. His inauguration, Mar. 4, 1813, found the war fairly opened. The same month Alexander I. of Russia offered his mediation for peace, which was accepted by the United States and refused by Great Britain in September; but in November she signified a willingness to treat. In Jan., 1814, Henry Clay and Mr. Russell were sent to England for that purpose, but no progress was made, and in August the British troops captured and burned the public buildings of Washington, including the president's house. The damages inflicted on British commerce by our privateers, and the battle of New Orleans, brought about a treaty of peace, which was signed by the United States commissioners at Ghent, Dec. 24, 1814. But it contained no concession of the British claim to impress seamen; which, however, though not yielded in theory, was abandoned in fact. The country had made brilliant successes in naval battles with English ships, and had acquitted itself not without honor in its land engagements; but the war developed a low order of patriotism on the part of the commercial or maritime interests of the country, which not only impaired its vigor, but pressed for peace with mercenary haste. The last three years of Madison's administration were marked by no important events, unless his concession to the establishment of a national bank, which he had always opposed, and once vetoed, may be considered one. Its subsequent dishonorable history was a proof of the soundness of his previous objections. Mr. Madison retired from public life with the close of the presidential term, Mar. 4, 1817, to his farm at Montpelier, Va., where he lived his remaining years happy in domestic affection, social enjoyments, farming, and literary labors. In 1829 he performed his last public service, as a member of the Virginia constitutional convention, where his frail and venerable figure and broken voice received the homage of the most profound attention and respect. His wife survived him, living to the age of 82, and died in Washington, July 12, 1849.

MADISON, JAMES, D.D., 1749-1812; b. near Port Republic, Va.; a second cousin of president Madison; graduated at William and Mary college in 1768; was admitted to the bar, but relinquished the law for the ministry; was chosen professor of mathematics in William and Mary college in 1773, and president in 1777. In 1775 and 1777 he visited England, and devoted his time to the study of the higher branches of science. In 1784 he became professor of natural and moral philosophy; in 1790 was consecrated the first bishop of Virginia by the archbishop of Canterbury in Lambeth palace, and also performed the duties of president and professor until his death. Besides some addresses, he published *Eulogy on Washington*; a large *Map of Virginia*; some papers in *Barton's Journal*, and in the *Transactions* of the American society.

MADISON UNIVERSITY, at Hamilton, Madison co., N. Y.; a Baptist institution, was founded as a seminary in 1820; reorganized into an academy, college, and theological seminary in 1832, and chartered under its present name in 1846. It has an endowment of \$430,000 (mostly raised since 1864), an annual income of \$38,234, and unproductive property amounting to \$150,000. It has a library of 11,000 volumes, a fine museum, a cabinet of minerals, and a laboratory and apparatus. The site, elevated about 60 ft. above the waters of the Chenango and the plain below, having pure springs of water in the rear, and in front the village of Hamilton, presents a landscape of great loveliness, and for the student, a home of health and beauty. Besides a president's house, professors' houses, gymnasium, and university boarding hall, there are three edifices of stone, used strictly for college purposes. The hall of alumni and friends, 107×73 ft., has ten lecture rooms, a library, a college chapel, and a large audience room, 107×73 ft., for college commencements. West college, 100×60 ft., and East college, 100×56 ft., are mainly occupied by students' rooms and dormitories; but East college has two halls for literary societies and two academical drill-rooms. West college has, also, an auditorium, a museum of foreign curiosities, a museum of natural history, and a set of rooms for chemistry, geology, and physics. The university awards \$500 a year as prizes, and pays of itself \$4,500 annually to students on scholarships, and over \$5,000 more, through the education society, for the benefit of the needy. Number of instructors in 1880, 22; students in college, 88—in theological seminary, 38. E. Dodge, D.D., LL.D., president.

MÄDLER, JOHANN HEINRICH, 1794-1874; b. Prussia; at first an instructor in the Berlin normal schools. He published a map of the moon, 1834-36; and the latter year he was appointed to a position in the Berlin observatory. The next year his *Allgemeine Selenographie* appeared, in two volumes. In 1840 he was made director of the observatory at Dorpat, where he published, in 1846, *Die Centralsonne*, in which he propounded the theory that the star Alcyone in the Pleiades is, or in its position represents, the center of the stellar universe. He also published a popular astronomy and a history of astronomy. His researches in regard to variable and double stars are of great value, and he ranks as one of the eminent astronomers of the century.

MADOCKAWANDO, about 1645-1700, an Indian chief of the Etchemin tribe of the Penobscot. In the French and English wars he at first favored the English; but a

French baron having married his daughter, he took the other side and for years devastated the New England borders.

MADOU, JEAN BAPTISTE, 1796; b. in Brussels; early distinguished for his talent in depicting picturesque phases of life. In 1855 he sent to the exposition of Paris two pictures entitled a "Trouble fête" and the "Fête-au-Château" for which he obtained the second medal and the cross of honor. He became professor of the royal school of Brussels and member of the academy of Antwerp. In 1821 he published a superior lithographic work entitled *Voyage Pittoresque dans le Pays Bas*, which attracted much attention. This was followed by works on the ancient and modern costumes of the Low Countries, and scenes in the lives of the Flemish and Holland painters. His latest work was *Physiologie de la Société en Europe, de Louis XI à nos Jours*, with 120 plates, 1835, which has a high value.

MADOZ, PASCUAL, 1806-70; b. Spain; was educated at Saragossa, but was expelled from the university as a schismatic, and resided for some time in France. He returned to Spain, and edited the *Diccionario Geográfico Universal*, and a *Coleccion de Causas Célebres*. He became prominent in politics, was appointed a judge, and was made military governor of the valley of Aran. In his new office he conducted operations against the Carlists, and was elected a member of the cortes. He opposed Espartero, and eventually took the lead of the party known as *progresista* in the cortes. He became minister of finance in 1855, but retired after holding the office a few months, and in the following year opposed the O'Donnell ministry and was obliged to flee. He was active in the revolution of 1868, was governor of the province of Madrid, and a member of the constituent cortes. He died while accompanying the Spanish deputation to Rome, to offer the crown of Spain to Amadeus. He left an important work of which he was both editor and publisher, printing it in the office which he had established. This work is the *Diccionario Geográfico Estadístico y Histórico de España*; 16 vols. 4to, Madrid, 1848-50.

MADRID, a province of central Spain, in New Castile, bounded by the provinces of Toledo, Segovia, Avila, Cuenca, and Guadalajara; watered by the Tagus river; 2,997 sq. m.; pop. 70, 487, 482. It is a mountainous region, with a mean elevation above the sea level of 3,500 ft., a severe climate, and little vegetation. In the s. and w. parts, where the soil is fertile, there is a large yield of hemp, barley, oats, wheat, and rye; and there is a slight production of olive oil and wine. Capital, Madrid.

MADURA, the capital of the district of Madura, in the province of Madras; 270 m. s.w. from the city of Madras; pop. 36,000. It was anciently the seat of the Pandian kingdom, which was founded 500 B.C. Ambassadors from the king of Pandya visited Rome in the time of Augustus. Early in the Christian era a college was founded here for the cultivation of Tamil literature, and was distinguished throughout India for the learning of its professors. They took great pains to keep the language free from Sanskrit words, which were then beginning to be brought from the north, and to this day no Tamil is there considered pure that has any mixture of the northern tongues. The last sovereign, queen Menakshi Amman, was dethroned by Chunder Saib, 1736; from 1740 to 1760 the city was repeatedly besieged, and was often in the hands of rebels. Till recently it had a double wall with 72 towers surrounded by a ditch from 60 to 70 ft. wide. Some of the native edifices give evidence of ancient splendor, but most of the dwellings are very inferior. The temple of Meenarchi or Fish mother is in the center of the city, and is the fourth of the seven strongholds of idolatry in India. It is said to have been partially destroyed in the flood of Menu, and to have been rebuilt by Sekhara Pandian in the 2d or 3d c., to have been nearly destroyed during the second Mohammedan conquest in the 14th c., and renewed by Viswanatha Naick. Its present splendor is due to Tirumal Naick, the last rajah, who reigned 1622-62. The outer wall of the temple is a parallelogram of 800 by 700 ft., within which are 50 buildings devoted to the various purposes of the temple worship, and the use of those who conduct it. The wall is of granite with a parapet of brick, and is 37 ft. high. The main entrances are by four gateways 30 ft. high, through towers 50 or 60 ft. wide at the base which rise in 11 stories to the height of 150 feet. One choultrie or rest-house within the inclosure built by Tirumal Naick is 312 ft. by 125, the roof supported by 162 columns, many of them wrought from a single stone. Fifty-four of these columns are 30 ft. high, of 2 stones fitted face to face so as to look like one solid block 4½ ft. thick, carved on all sides with life-size figures in full or in bas-relief. The granite roof of one room is supported by 1,000 columns, and the columns in the whole temple number 10,000. There are also remains of a palace of considerable magnificence built by Tirumal Naick. Madura has been the metropolis of Hinduism for southern India. Early in the 17th c. a Roman Catholic mission was established here, and continued for about 150 years. In 1837 the mission was re-established, and has prospered. Up to 1835 no Protestant missionary had ever resided in the city. In that year a mission was established by the Rev. Daniel Poor and others of the American board, and much has been accomplished for the enlightenment of the people. From this center Christian work has extended to several other cities and many villages; between 30 and 40 native churches have been formed, more than 159 native congregations gathered, and about 7,000 converts recorded; a large number of children are under instruction in over 100 schools, and there are faithful educated native pastors, catechists, and teachers.

MADURA DISTRICT (*ante*), bounded n. by the district of Trichinopoly and Coimbatore, e. by Tanjore and Palk's strait, s. by the gulf of Manaar, w. by Travancore. The principal river is Vygah, which after a course of 180 m. falls into Palk's strait. The district has an elevated range of mountains, the highest peak being 7,000 ft. above the level of the sea. The district of Madura has four general divisions, which are subdivided into talooks or counties. In the entire district there are 1015 villages, and a population of 1,306,725. The climate of the hills is mild in summer, but cold in January; that of the plain is dry and hot; the thermometer sometimes reaching 115°. It partakes of the vicissitudes of the two monsoons. The district came into the possession of the English in 1801.

MADVIG, JOHANN NIKOLAI, b. at Svanike, in the island of Bornholm, 1804; was educated at the university of Copenhagen, and obtained there the professorship of the Latin language and literature when he was only 25 years of age. Although his life has been chiefly devoted to philological studies, and to the careful editing of classical works, he has held important official positions in Denmark, where he was minister of public worship in 1848, director of public instruction in 1852, and a member of the diet in 1854. He has published a *Glance at the Constitutions of Antiquity*; a *Latin Grammar for Schools*; *Adversaria Critica ad Scriptores Græcos et Latinos*; *The Creation, Development, and Life of Language*; and other works.

MAELSTROM. See **MALSTRÖM** *ante*

MAERLANT, JAKOB, 1235-1300; a Dutch poet, regarded as the father of poetry in the Low Countries. His *Heimelijckheid der Heimelijckheden* was published in Dort in 1838; *Wapen Martijn* in Antwerp in 1496 and in Dort in 1834. In 1270 he completed a versified version of the Bible, *Rijmbibel*, published in 1858-60. In 1283 he wrote *Spiegel Historiæ*, and among his works is one entitled *Der Naturen Bloeme*, published in Brussels in 1857.

MAES, or MAAS, NICOLAS, 1632-93; a Dutch painter, pupil of Rembrandt; Acquired a fortune by his skill as a portrait painter at Amsterdam, and his works command a high price to this day. In other lines of painting he also achieved fame, and there is a painting in the Louvre at Paris representing a wife reproaching her husband that exhibits his characteristics as a painter.

MAESTRI, PIETRO, 1816-71; b. in Milan. He took a prominent part in the revolutionary movements in Italy in 1848, and became one of the heads of the provisional government; afterwards exiled and resident in France till 1859, when he joined the movement of Garibaldi for the unity of Italy. He founded and edited the *Statistica Generale* at Milan in 1861. In 1863 he published *La Francia Contemporanea*. He was connected with the Italian department of the Paris exposition of 1867 and published *L'Italia Economica*, which he continued to edit. He died in Florence, and his native city of Milan honored him with a cenotaph.

MAES'TRICHT. See **MAASTRICHT**, *ante*.

MAFFITT, JOHN NEWLAND, D.D., 1794-1850; b. Dublin; joined the Wesleyan Methodists; came to the United States in 1819, and was received into the New England Methodist Episcopal conference. He was pastor for 12 years of several important churches. In 1831 he removed to New York, and traveled in various parts of the country, lecturing and preaching. In 1833 in connection with the Rev. L. Garrett he founded in Nashville, Tenn., the *Western Methodist*, a weekly journal. He preached extensively as a revivalist, his brilliant eloquence attracting immense congregations. In 1837 he was elected professor of elocution and belles-lettres in the La Grange college, Alabama. This position he held until chosen chaplain to congress in 1841. In 1845 he established at Auburn, N.Y., and edited *Calvary Token*, a literary and religious monthly. He was exceedingly dramatic and emotional in his style both of language and delivery.

MAGALHA'ENS, DOMINGOS JOSÉ GONÇALVES DE, 1810; b. in Rio Janeiro, of an old Portuguese family; educated a physician. In 1836 he was attached to the Brazilian embassy to Paris. Returning to Rio in 1838 he became professor of philosophy, and then successively member of the chamber of deputies, and ambassador at Naples, Turin, and Berlin. He remained for many years in the latter position. He first published lyric poems in 1832 and subsequently has published from time to time works that have exhibited a constantly improving genius, and tendency to philosophical speculation. His *Mysterios* is one of the most esteemed of his works. *Antonio José* and *Olgiato* are two tragedies dealing with facts in the history of Brazil, and have been used on the stage. His most popular work in Brazil is entitled *A Confederação dos Tamoyos*, published in Rio Janeiro in 1857. It is a vivid picture of the defense of the Indians against the Portuguese, describes the founding of the city of Rio Janeiro, and is considered the national lyric of Brazil.

MAGALHA'ENS, or MAGELLA'NES, FERNANDO. See **MAGELLAN**, *ante*.

MAGALHA'ENS, FRAY GABRIEL DE, 1609-77; b. at Pedrogao, Portugal; united with the order of Jesuits at 16 years of age; sent as a missionary to India in 1634. In 1640 he set out for Japan, but having stopped at Macao he concluded to explore the interior of China. Having studied the Chinese language at Macao, he went to the

western province of Szechuen, where he met with great success as a Christian teacher. A rebellion in the province while he was there exposed him to great peril, but nothing worse happened to him than to be wounded on one occasion by an arrow. He accompanied the victorious imperial army to the capital in 1648, where he gained the favor of the emperor and was permitted to build a church. But on the accession of a new emperor he was subjected to persecution, twice put to torture, and condemned to death, from which he escaped by the intervention of the regency. Three years later he was again arrested and ordered to leave the country; but an earthquake at the time caused a panic which diverted attention from him, and he remained in the country until his death at Pekin, when he was honorably buried by the emperor's order. He was of the same family as the great navigator, and his work in the French language, entitled *Nouvelle Relation de la Chine, contenant la Description des Particularités les plus Remarquables de ce Grand Empire*, is very highly esteemed by scholars.

MAGAZINE GUNS. See **BREECH-LOADING GUNS.**

MAGDALA, in Galatia, probably the birth-place of Mary Magdalene, i.e., Mary of Magdala. The name signifies tower or castle. It was on the lake Gennesaret, on the western shore. After the destruction of Jerusalem it was a seat of Jewish learning, and the rabbins of Magdala are often mentioned in the Talmud. A small Moslem village, now found on the shore of the lake, 3 m. w. of Tiberias, is supposed to represent the Magdala of Scripture.

MAGDALENA, a state of Colombia, on the Caribbean sea, having Venezuela on the e., Santander on the s., and Bolivar on the w.; 26,950 sq m.; pop. '70, 85,255. The surface is varied with mountains and valleys in all parts; the country is watered by the river Magdalena and its branches. The climate is severe, the temperature being generally oppressively warm. Yellow fever occurs at the sea-ports. The productions are tropical fruits, rice, cotton, coffee, sugar, tobacco, and cacao. Gold is found in the interior.

MAGEE, WILLIAM, D.D., 1766-1831; b. Ireland; graduated at the university of Dublin, 1785; obtained a fellowship three years after, and gave instruction while preparing for the ministry; took orders in the church of England 1790; some years after was chosen, in the university of Dublin, assistant professor of oriental languages; became senior-fellow and professor of mathematics 1806; retired from the university 1812, to the parishes of Kappagh and Killyleagh; was made dean of Cork 1814, where he excelled as a sacred orator; was appointed bishop of Raphoe 1819, and archbishop of Dublin 1822. He was a zealous Protestant and Trinitarian. Of his writings, the *Discourses on the Atonement and Sacrifice*, first published in 1811, and afterwards in many editions, have been most widely known and highly esteemed.

MAGEE, WILLIAM CONNOR, D.D., b. Ireland, 1821; educated at Trinity college, Dublin; became a curate in Dublin, and, in 1848, of St. Saviour's, Bath; incumbent of Octagon chapel, Bath, 1850; was active in organizing the church defense society; minister of Quebec chapel, London, 1860; rector of Inniskillen 1861; dean of Cork 1864; and, soon after, dean of the chapel royal, Dublin; and bishop of Peterborough 1866. Eloquent and popular as a speaker, he has preached on public occasions in different parts of Great Britain, and in the debates in the house of lords was especially active in opposing the disestablishment of the Irish church.

MAGELLAN, STRAIT or (*ante*). Since steamships have been used for long voyages the strait of Magellan has acquired a new importance. On account of its fogs, precipitous shores, numerous hidden rocks, and sudden squalls, it had come to be avoided by sailing vessels, which found the circuit of cape Horn far less perilous. Careful observations, made by the steamers of many nations in its passage, have been recorded to an extent that makes it at the present time comparatively safe for steamers. Entering from the east through Desolation bay, its shores are low, reddish, and sandy. Further in, the strait varies in width from $\frac{1}{4}$ of a mile to 15 miles, and as the center is reached the shores become precipitous, conveying the impression that they had once joined, and had been parted by some great convulsion of nature. Their height varies from a few feet to many hundred, with high mountains rising behind them on the n. side, and round-topped hills on the s. or Terra del Fuego side. The most direct passage through to the Pacific is at cape Pillar, a point nearly s.w. of the entrance on the Atlantic, where lofty rocks on each side of a passage less than a mile wide form a gateway to the open Pacific. Sandy point, on the n. shore, lies about midway of the strait, and is the only settlement of whites. The Chilian government here has a penal colony. Port Famine, the scene of a sad tragedy of starvation nearly 300 years ago, lies to the west. North of the cape Pillar channel the strait opens by innumerable passages through an archipelago of barren rocky islands to the Pacific. But the channel now generally taken is an inland one from the strait on the s. by a passage known as Smyth's channel, about 350 m. long, to the stormy gulf of Penas on the n., where it connects with the open sea. The most picturesque and alpine part of the scenery of the strait is near the w. end, where lofty snow-covered ranges, cloven peaks, great glaciers, and valleys filled with somber forests, as seen from passing steamers, form a changing panorama of unique beauty. Mrs. Agassiz has described it vividly in the *Atlantic Monthly*

of Jan., 1873. The scientific expedition of which Agassiz was the leader spent several months in the strait in 1871, and its reports are the fullest ever made, not only of their general features, but also of their scientific bearings. Mrs. Agassiz speaks of banks of wild fuchsias found in bloom there in March, which indicates that, however low the average temperature, the extreme, by the sea-side, is not low. Chili now claims the country contiguous to the straits, though Paraguay disputes the claim. The natives of Patagonia on the n. side and of Terra del Fuego on the s. are widely different; the former being noted for their great stature and good forms, and the latter for small size, bad forms, and degraded condition. Seals are found in abundance in the strait, but not the species bearing the most valuable fur. Besides recent works and reports on the strait already alluded to, the *Voyage round the World* by Charles Darwin, reprinted, New York, 1878; *Adventures in Patagonia*, by rev. T. Coan, 1880; and *Les Naüees Magellanique*, by Duboc, Paris, 1853, are among the most instructive.

MAGHADA, one of the kingdoms of India when Alexander the great invaded the country, B.C. 400. It comprised the greater part of southern and central India, and lasted till about A.D. 450. Its capital was Palibothra on the Ganges, and is supposed to have occupied the site of the present Patna. Seleucus, one of Alexander's generals, to whom Bactria was given, which included the provinces on the Indus, attempted conquests beyond that river, and was involved in war with Chandragupta, king of Maghada, called by the Greeks Sandracottus, 312-280. His grandson Asoka, B.C. 250, extended his empire and the Buddhist religion over the larger part of India.

MAGINDANAO, or MINDANAO. See PHILIPPINE ISLANDS, *ante*.

MAGINN', WILLIAM, LL.D., 1793-1842; b. in Cork, Ireland, d. at Walton on Thames, near London. In youth he had such precocity of talent that he was admitted to Trinity college at the age of ten. He became a valued contributor to *Blackwood's Magazine*; a Paris correspondent in 1824; editor of the *London Standard* in 1828; of *Fraser's Magazine* in 1830; of the *Lancashire Herald* in 1839, and the *Magazine of Miscellanies* in 1840; and was an occasional contributor to the *Quarterly Review*, *Bentley's Miscellany*, and *Punch*. His style was noted for its brilliancy and wit. A collection of his works was published in the United States, 1855-57, in 5 vols., edited by Dr. R. S. Mackenzie.

MAGNAN, BERNARD PIERRE, 1791-1865; b. Paris; son of a notary; entered the army in 1809, and served under Napoleon till the defeat at Waterloo; lieut.col. in the campaign in Spain 1823-27; was in the expedition to Algiers in 1830. Censured for lack of energy in dealing with an insurrection in Marseilles in 1831, he entered the service of Belgium as gen. of brigade; in 1839 returned to France; was implicated in the first attempt of Louis Napoleon to make a rising of the people in his favor at Boulogne; in 1848 tendered his services to Louis Philippe after his dethronement, but was energetic in bringing the army of the Alps to Paris in June of that year to repress a formidable insurrection under the republic, and another at Lyons in 1849. He allied himself with Louis Napoleon when president of France, and was his efficient instrument in overthrowing the republic by the treacherous *coup d'état* of Dec. 2, 1852, which made Napoleon emperor. The emperor made him a grand marshal of France.

MAGNE, PIERRE, 1806-78, b. France; was employed when a young man by the prefect of Dordogne; and afterwards pursued the study of jurisprudence at Toulouse. Returning to Périgueux, his native place, he entered upon the practice of his profession. His talents did not escape the notice of the government, which made him, in 1835, a councilor to the prefecture of the Dordogne. He was elected to the chamber of deputies in 1843, and soon came to be considered an authority in its financial discussions, in which he took part as a member of the committee on the budget. He became an under-secretary in the war department in 1847, but resigned upon the outbreak of the revolution in 1848, and retired to Périgueux, whence, the following year, he was recalled to take the place of under-secretary in the ministry of finance. He was transferred to the department of public works in 1850. He withdrew from the cabinet in consequence of the dissension among its members in regard to the confiscation of the estates of the Orléans family. He was chosen senator in 1852, and in July of that year re-entered the cabinet, in his old position as minister of public works. In 1853 he was appointed minister of commerce and agriculture, and in 1855 minister of finance. His knowledge of and talent for finance were remarkable, and though he occasionally resigned or was transferred to some other department, on account of his inability to agree with his colleagues, or to carry out some favorite financial scheme, he was always sure to be recalled. He was out of office from 1863 to 1867, when he was re-instated as the only man who could successfully place the great loan, whose negotiation France was then contemplating. When Émile Ollivier was invited by the emperor, Dec. 27, 1869, to form a new ministry, Magne went out of office; and his place was taken by M. Buffet. He returned to the treasury when the duc de Broglie took office, April 24, 1873, and went out with the de Broglie ministry, May 16, 1874. At the time de Broglie formed his cabinet, Magne was serving in the national assembly, to which he had been returned from the department of the Dordogne. His last public office was that of a senator for the Dordogne, to which office he was elected in 1876.

MAGNENTIUS, FLAVIUS POPILIUS, Roman emperor of the west. He was of barbarian extraction, but soon rose to the rank of count under the emperor Constantine the great. Entering the service of Constans, son of Constantine the great, emperor of the west, he was put in command of the troops that defended the Rhine, and plotted the overthrow of that prince. With the aid of Marcellinus, count of the sacred largesses, his plot was successful. Marcellinus having invited the officers of the army, stationed near the city of Autun, to a banquet in honor of the birthday of his son, at a late hour introduced Magnentius arrayed in robes of royalty. The cry "Long live Augustus" was raised by several conspirators, Constans was assassinated, and Magnentius took possession of the palace at Autun. In a short time Gaul, Italy, and most of the western provinces, acknowledged the usurper as emperor. Constantius, the brother of Constans, and emperor of the east, hastened to avenge the death of his brother, and totally defeated Magnentius before the town of Mursa on the Drave, 351. He fled to Italy, thence to Gaul, where Constantius followed him, and again in 353 defeated him in the Cottian Alps. On the eve of being captured by his enemies, and deserted by the countries that had acknowledged him, he committed suicide at Luddunum, Aug., A.D. 353. Constantius thus became master of the whole empire.

MAGNESIA, a district of Thessaly, Greece, the narrow and mountainous portion between the river Peneus and the Pagasæan bay to the n. and s. and between the chain of Ossa and the sea on the w. and east. The Magnesians submitted to Xerxes, but afterwards were subdued by the kings of Macedon, who succeeded Alexander, and were declared free by the Romans after the battle of Cynoscephalæ. Their government was then republican.

MAGNESIA, the name of two ancient cities of Asia Minor. The first was in the northern part of Lydia, near the Hermus, at the foot of Mt. Sipylus, and was called *Magnesia near Sipylus*, to distinguish it from the other. Its founder and early history are not known, but it was first brought into notice by the victory of the Romans over Antiochus the great, in 187 B.C. It was one of the 12 cities destroyed by the earthquake in the time of Tiberius, which he soon rebuilt. It is now Manissa. The second was in Caria on the river Lethæus in the valley of the Mæander, and called *Magnesia at the Mæander*, to distinguish it from that near Mt. Sipylus. It was 15 m. from Ephesus. It had a famous temple of Diana, the remains of which Hamilton discovered in exploring the ruins of the city.

MAGNETIC IRON ORE. See **LOADSTONE**, *ante*.

MAGNETISM, ANIMAL. See **ANIMAL MAGNETISM**, *ante*.

MAGNIFYING-GLASS. See **MICROSCOPE**, *ante*.

MAGNIN, CHARLES, 1793-1862; b. Paris; received a superior education, and at the age of 20 became an assistant in the imperial library, and in 1832 a director. He wrote for the Paris press, theatrical criticism, essays, and sketches, and attracted the favorable notice of leading French writers. He also delivered lectures at the Sorbonne on the origin of the modern stage, and gained a sufficient reputation as a man of learning to obtain a seat in the academy of inscriptions and belles-lettres. His published works include *Causeries et Méditations Historiques et Littéraires*; *Les Origines du Théâtre Moderne*; *Le Théâtre des Français*; and *Histoire des Marionnettes*.

MAGNUS, HEINRICH GUSTAV, 1802-70; b. Berlin; educated at the university of Berlin, where he devoted himself to the study of natural science. He also studied chemistry with Berzelius at Stockholm. At the age of 26 he had already made important discoveries in chemistry, and in 1834 was made extraordinary, and in 1845, ordinary professor of physics and technology in the Berlin university. He made important experiments on the transmission of heat through gases, which were published in 1860.

MAGOFFIN, an e. co. of Kentucky, drained by the Licking river, and bounded on the e. by mountain ranges. The surface varies in character, being fertile in parts; 600 sq. m.; pop. '80, 6,943. The productions are not abundant; wheat, Indian corn, wool, potatoes, oats, and butter, are the most important. Co. seat, Salyersville.

MAGOON, ELISHA L., D.D., b. N. H. 1810; at first a bricklayer, but in 1840 ordained to the ministry of a Baptist church, and settled at Richmond, Va. After a tour in Europe, and pastorates at New York and Albany, he removed in 1830 to Philadelphia, where he remains. He has published *Orators of the American Revolution*, 1848; *Living Orators of America*, 1849; *Republican Christianity*, 1849; and *Westward Empire*, 1856. He has shown broad literary taste and culture.

MAGRUDER, JOHN BANKHEAD, 1810-71; b. Va.; graduated at the military academy in 1830, and was appointed second lieutenant in the infantry. He was promoted first lieutenant in 1833, and capt. in 1846. He served with distinction through the Mexican war, at the head of the light battery attached to the division of gen. Pillow. He was brevetted major after Cerro Gordo, and lieutenant-col. after Chapultepec, where he was wounded. He resigned from the army April 2, 1851, to enter the confederate service, in which he was made successively col., brig. gen., and maj. gen. He was at first attached to the army of Virginia, commanding at Yorktown till its evacuation in May, 1862, when he joined the campaign on the Chickahominy. In October of the same year he went to Texas to take

command of the department of the west, embracing, besides Texas, Arizona and New Mexico. He remained in active service in Texas throughout the war, conducting a number of military operations, of which the most brilliant resulted in the abandonment of Galveston by the federal forces. After the war he lived for a time in Mexico, but afterwards settled in Texas.

MAGUIRE, JOHN FRANCIS, 1815-72, b. Ireland; a lawyer and journalist. He sat in parliament as member for Dungarvon from 1852 to 1865, and for Cork from 1865 till his death. He was mayor of Cork for several years, and owned and edited there the *Cork Examiner*. He was the author of *The Industrial Movement in Ireland in 1852*; *Rome and its Ruler*; *The Irish in America*; *Life of Father Mathew*, and *The Next Generation*.

MAHAN, ASA, D.D., b. in Vernon, N.Y., in 1799; graduated at Hamilton college in 1824, and at Andover theological seminary in 1827; in 1829 became pastor of a Presbyterian church in Pittsford, N.Y., and of a church of the same denomination in Cincinnati in 1831; became president and professor of philosophy at Oberlin in 1835; was president of Cleveland university from 1850-56; pastor of a Congregational church in Jackson, Mich., from 1856-58, and of another at Adrian from 1858-61; and president of Adrian college from 1861-71. His principal works are, *The Scripture Doctrine of Christian Perfection*; the *Science of Intellectual Philosophy*; the *Doctrine of the Will*; the *Science of Moral Philosophy*; the *Science of Logic*; and *Modern Mysteries Explained and Refuted*—the latter directed against spiritualism. He has written also a work of some size in the department of military criticism.

MAHAN, DENNIS HART, LL.D., 1802-71; b. N.Y.; educated at West Point, and appointed to the army in the engineer corps. In 1825 he was made assistant professor of mathematics at the academy; and in 1832, after four years of study abroad, professor of military engineering, and remained at West Point in that capacity till his death, which occurred by suicide in a fit of temporary insanity. He stood high in his profession, and he wrote a number of text books on civil and military engineering, which came into general use in schools and colleges in the United States. His *Treatise on Field Fortifications* appeared in 1836, and was supplemented in 1865, by *Military Mining and Siege Operations*, the two constituting parts I. and II. respectively, of *An Elementary Course of Military Engineering*. He also published *An Elementary Course of Civil Engineering* in 1837, which he rewrote and revised in 1868; *Advanced Guard, Outpost, and Detachment Service of Troops*, 1847; *Elementary Treatise on Industrial Drawing*, 1853; *Descriptive Geometry*, 1864; and an edition of Moseley's *Mechanical Principles of Engineering and Architecture*, 1856. Brown university, Dartmouth college, and William and Mary college conferred upon him the degree of LL.D.

MAHAN, MILO, D.D., 1819-70; b. Suffolk, Nansemond co., Va.; was educated at St. Paul's college, Flushing, L.I.; took orders in the Protestant Episcopal church in 1845; became rector of Grace church, Jersey City, in 1848; and in 1850 assistant minister of St. Mark's church, Philadelphia; was elected professor of church history in the Episcopal general theological seminary in New York in 1851, which position he held for 13 years. In 1864 he became rector of St. Paul's church, Baltimore. His published works are *The Exercise of Faith*; *History of the Church the First Three Centuries*; *Reply to Colenso*; *Palmoni, a Free Inquiry*; *Comedy of Canonization*. The Rev. J. Hopkins collected and published his works, with a memoir, in 3 vols.

MAHANOEY CITY, a t. in Schuylkill co., Penn.; 80 m. from Philadelphia; pop. 5,553; situated in the valley of the same name and in the neighborhood of extensive coal fields, in the mining of which and trades connected with it the people of the city are mainly occupied.

MAHASKA, a co. in s.e. Iowa, watered by the Des Moines and forks of the Skunk rivers, and traversed by the Central and Des Moines Valley railroads; 576 sq.m.; pop. '80, 25,201. The surface is chiefly prairie land, with wooded intervals. The soil is fertile, producing largely of wheat, Indian corn, oats, hay, and potatoes. Considerable wool is grown; the number of cattle, sheep, and swine is large, and there are some quite important manufactories. Co. seat, Oskaloosa.

MAHMOOD (or MAHMUD) OF GHIZNI (ABUL-KASIM-YEMINED-DAULAH), Sultan of Persia. See GHIZNEVIDES, *ante*.

MAHOMET. See MOHAMMED, *ante*.

MAHON, Viscount. See STANHOPE, EARL, *ante*.

MAHONE, WILLIAM, b. in Southampton, Va., about 1827, and graduated at the Virginia military institute in 1847; adopted the profession of a civil engineer; constructed the Norfolk and Petersburg railroad; assisted in the capture by the rebels of the Norfolk navy yard, April 21, 1861; raised and commanded a regiment of Virginia soldiers in the confederate army; was in most of the battles of the peninsular campaign, and in command at Bermuda Hundred at the time of Lee's surrender. He was promoted to the rank of maj.gen. in 1864. After the war he was engaged in the management of several lines of railroad in Virginia. In 1880 he was elected to the senate of the United States as the successor of Robert E. Withers. The question of the extinguishment of the public debt, which was complicated by the relations of Virginia and

West Virginia, had been at issue during every year since 1873, when terms for its equitable adjustment had been agreed upon. These terms, however, not proving satisfactory to a large proportion of the population of the state of Virginia, were not carried out, and two strong parties were formed under the names, respectively, of "debt-payers" and "readjusters," of the latter of which gen. Mahone became the leader and the most active spirit. The "readjusters," while recognizing the just liability of Virginia for her just debts, denied the right of her taxation for that portion of the debt which should attach to West Virginia, opposed over-taxation, declared in favor of the protection of the public free schools, and advocated reform and economy.

MAHO'NING, a co. in n.e. Ohio, watered by the Mahoning and Little Beaver rivers, and intersected by the Atlantic and Great Western, and Pittsburg, Fort Wayne, and Chicago railroads; 422 sq. m.; pop. '80, 42,867. The surface is undulating, and the soil very fertile. The productions are: wheat, Indian corn, potatoes, oats, hay, wool, butter, flax, and flax-seed. There are a number of iron foundries and furnaces, rolling mills, flour mills, saw mills, and tanneries. Co. seat, Canfield.

MAHO'NY, FRANCIS, 1805-66; b. Ireland; educated at the Jesuit college in Paris, and at Rome, where he entered the priesthood of the Roman Catholic church. He tried, but in vain, to find employment in his profession; and he then went to London, and devoted himself to literature and journalism. He contributed to *Fraser's Magazine* for 1836, under the pseudonym of "Oliver Yorke," a series of papers which were afterwards published in book form as *The Reliques of Father Prout*. They are conceived in the spirit of Wilson's *Noctes Ambrosianæ*, and show considerable learning and humor, and a talent for comic verse and parody. He was the first Roman correspondent of the *Daily News*, and his letters from Rome to that journal were published in 1849 under the name of *Facts and Figures from Italy*. He lived at Paris for many years as correspondent of the *London Globe*, but in 1864 he entered a monastery, where the last two years of his life were passed.

MAHOPAC', LAKE, one of a group of 22 lakes in Putnam co., N. Y., 1800 ft. above the level of the sea, 9 m. in circumference, a favorite resort for summer excursionists. It is in the midst of picturesque scenery, and offers advantages of good boating and fishing.

MAIL. See POST-OFFICE.

MAINE (*ante*). The Northmen discovered the coast, as is now generally conceded, as early as 990, visiting it occasionally until the middle of the 14th c., but founded no settlement upon it. From 1350 to 1498, the time of Cabot's second expedition, there is no evidence that the coast was seen by any European. In 1524 it was visited by a French expedition, under Verrazano; in 1525 by the Spaniards, under Gomez, and, in 1527, by the English, under Rut; but none of these made any settlement. In 1556 a Roman Catholic priest, André Thevet, entered Penobscot bay, remaining five days, and holding numerous conferences with the natives, but without any immediate result. The first attempt to settle upon the territory was that of the French, under Du Mont, who in 1604 planted a colony on Neutral island in the river St. Croix, which was abandoned the following year. In 1605 capt. Weymouth explored a part of the coast, and was followed in 1607 by the expedition sent out by sir John Popham and sir Ferdinando Gorges, which, under a charter from king James, made a settlement at the mouth of the Kennebec. This colony, however, returned to England in the following year. In 1613 the French Jesuits established a mission on Mt. Desert island, but were soon driven off by the English. In 1616 Richard Vines, an agent of sir F. Gorges, went with a small company to Saco, to remain during the winter and explore the surrounding region; while a company of fishermen, under capt. John Smith, took possession of Monhegan island, ranged the whole coast to Cape Cod, and prepared a map of the country, to which he gave the name of New England. In 1620 James I. divided the territory conveyed by the charter of 1606, granting to the Plymouth company the portion lying between the 40th and 48th degrees of n. lat., and to the Virginia company the whole region s. of the 48th degree. In 1622 Gorges and capt. John Mason obtained from the Plymouth colony a grant of the territory lying between the Merrimac and the Kennebec rivers, and in 1623 planted a colony at the mouth of the Piscataqua, which was the first permanent settlement of the main land in Maine. Gorges and Mason divided these possessions between them, the former taking the portion e. of the Piscataqua, and the latter that w. of the same river. In 1624 Gorges established a colony at York, and in 1625 Pemaquid was occupied under grants from the Plymouth company. After 1630 settlements were made at Saco, Biddeford, Cape Elizabeth, Portland, and Scarborough, which flourished until 1675, when they, in common with those between the Kennebec and the Penobscot, were destroyed by the Indians. The whole country e. of the Penobscot was claimed by the French, and little improvement was made there until after the revolutionary war. In 1635 the portion of the Plymouth company's territory lying between the Piscataqua and the Kennebec was assigned to Gorges, who, after 1639, established a government over it under the name of Maine, which continued till 1677, when the territory was sold to Massachusetts for the sum of £1250. King Philip's Indian war began in Maine shortly before this time, and was attended with all the horrors of a conflict with an uncivilized and

deeply angered people. During the next eighty-five years the white settlers were in constant terror of Indian raids. In 1647 Gorges died, and in 1664 the territory between the Kennebec and the Penobscot was granted by Charles II. to his brother James (then duke of York, afterward James II.), who established a government at Pemaquid, where he erected a strong fort. This country, however, was surrendered to Massachusetts in 1686, and her title thereto and to all the territory e. to the St. Croix and Nova Scotia was confirmed by the provincial charter of 1691. Between 1687 and 1689, Andros, the royal governor of the New England colonies, visited Maine, and practiced great extortion upon the inhabitants. By the treaty of 1783, at the conclusion of the revolutionary war, Massachusetts obtained possession of the territory and exercised jurisdiction over it as "the district of Maine" (often known as "the province of Maine") until 1820, when it was admitted to the union as an independent state. Its population at that time was 298,269. The growth of the state was steady from that time forward, the census of 1870 showing a population of 626,915, of whom 313,103 were males, and 313,812 were females; number of families, 131,017; of dwellings, 121,953; of persons over 10 years of age who could not read, 13,486, and of those who could not write, 19,052. The number of persons engaged in all occupations was 208,225, of whom 82,011 were engaged in agriculture, and in professional and personal services, 36,092, including 890 clergymen, 558 lawyers, 818 physicians and surgeons, and 4,183 teachers.

The surface of the state is much diversified, the sea coast being in large part flat, and at some points marshy. The chief exceptions to this are Mt. Agamenticus, 670 ft. high, near the s.w. coast; the Camden hills, 1500 ft. high, on the Penobscot, and the numerous peaks of Mt. Desert island and its vicinity, some of which rise to a height of over 2,000 feet. Back from the coast the country is hilly or mountainous. The great Appalachian chain, of which the White mountains of New Hampshire are a part, originates in the British province of New Brunswick, enters Maine at Mars hill in lat. $46^{\circ} 30'$, crosses the state in a s.w. direction, and joins the White mountain range at the New Hampshire line. The highest elevation of this range in Maine is Mt. Katahdin, near the geographical center of the state, which is 5,385 ft. in height. The other principal elevations are Mt. Abraham, Mt. Blue, Sugar Loaf, Chase's mountain, Mt. Mattatuck, Mt. Puzzle, and Mts. Saddleback and Bigelow. The Ebene and Spencer mountains, trending southward, and the highlands on the n., are spurs of this range. The n. portion of the state is drained by the Walloostook and the Aroostook, which empty into the St. John. The St. Croix forms a portion of the boundary between Maine and New Brunswick and empties into Passamaquoddy bay. The largest river of Maine is the Penobscot, which, with its branches and connecting lakes, drains the center of the state, flows into Penobscot bay, and is navigable for large vessels to Bangor, more than 50 m. from its mouth. West of the Penobscot is the Kennebec, navigable to Bath, and furnishing unlimited water power; and further w. still are the Androscoggin, the Saco, and the Piscataqua, which latter separates Maine from New Hampshire. One of the most striking natural features of the state is presented in the great number of lakes, both small and large, whose surplus waters go to swell the volume of the principal streams. These lakes, together with the rivers, are estimated to cover an area of 3,200 sq. miles. The largest is Moosehead, 35 m. long and from 4 to 12 in breadth. Among the others are the Sebago, Umbagog, Chesuncook, Baskahegan, Eagle, Portage, Long, Madewaska, Pamedumcook, Millinoket, Sebec and Schoodic. The soil in the valleys is generally fertile, but comparatively sterile in the mountains. The winters are long and severe, but of uniform temperature, the snow lying upon the ground from three to five months of the year. The thermometer ranges in the course of the year from 30° below to 100° above zero. The most unpleasant feature of the climate are the n.e. winds of the spring and early summer, usually accompanied by chilly fogs.

The state, especially in Aroostook, Piscataquis, and Washington counties, is well supplied with minerals. Iron, lead, tin, copper, zinc, and manganese are found in considerable quantities, while the manufacture of alum, copperas, and sulphur might easily be made profitable. Marble, slate, and limestone are abundant, while granite of the finest quality is obtained in blocks weighing more than 100 tons each. The metallic ores have not been much worked. The principal state quarries are in Piscataquis county.

The great forests which long covered the central and northern portions of the state are fast falling before the lumberman's axe, with the effect, as some believe, of a very serious diminution of the rain-fall. The principal forest trees are the pine, spruce, hemlock, maple, birch, beech, and ash, and in some parts of the state the butternut, poplar, elm, and sassafras. Apples, pears, and plums are raised with success; but the summer is too short for the growth of peaches.

The forests are inhabited by the moose, bear, deer, wolf, catamount, wolverine, beaver, sable, weasel, squirrel, etc., while among the birds may be mentioned eagles, wild geese and ducks, owls, hawks, partridges, pigeons, crows, quails, and humming-birds. Trout, salmon, and pickerel are abundant in the lakes and rivers; while the waters off the coast abound with cod, mackerel, herring, halibut, etc.

The number of farms in 1870 was 59,804, containing 2,917,793 acres of improved and 2,920,265 acres of unimproved land. The cash value of these farms was \$102,961,951; of farming implements and machinery, \$4,809,113; wages annually paid,

\$2,903,292; total value of farm productions and improvements, \$33,470,044; value of orchard products, \$874,569; of produce of market gardens, \$366,397; of forest products, \$1,581,741; of home manufactures, \$450,988; of animals slaughtered or sold for slaughter, \$4,939,071; of all live stock, \$23,357,129. The amount of wheat raised in 1870 was 278,793 bushels; of corn, 1,089,888 bushels; of oats, 2,351,354 bush.; of rye, 34,115 bush.; of barley, 658,816 bush.; of buckwheat, 466,635 bush.; of potatoes, 7,771,363 bush.; of wool, 1,774,168 lbs.; of hops, 296,850 lbs.; of butter, 11,636,482 lbs.; of cheese, 1,152,590 lbs.; of maple sugar, 160,805 lbs.; of honey, 155,640 lbs.; of milk sold, 1,374,091 gallons. Number of horses, 71,514; of milch cows, 139,259; of other cattle, 142,802; of sheep, 434,666; of swine, 45,760.

The production of lumber is the leading industry. In 1870 the forests were estimated to cover nearly one-half the entire surface of the state; but so extensive is the lumber trade, that this area of forest is constantly diminishing. Bangor, on the Penobscot, is the chief lumber mart. The amount surveyed there in 1870 was estimated at 200,000,000 feet. The counties which are the chief centers of the traffic are Penobscot, Washington, Hancock, and Piscataquis. In the first two of these counties the capital employed amounted to \$3,500,000. The number of sawmills was 1,099, employing 8,500 men and \$6,614,875 of capital, and dispensing in wages \$2,449,132, while the products amounted to \$11,395,747. The other chief industries are ship-building, boots and shoes, fisheries, ice-gathering, tanning and currying, vegetable canning, brick, cotton goods, flouring and gristmill products, lime, machinery, mining, and quarrying, paper manufacture, and woolen goods. In 1873 the whole number of manufacturing establishments was 6,072; number of persons employed, 55,614, of whom a little less than one-third were women and children; capital invested, \$48,808,448; wages paid, \$16,584,164; annual value of products, \$96,209,136. The products of the Maine fisheries in 1870 amounted to \$979,610. In 1873, 861 vessels of 46,196 tons were engaged in the cod and mackerel fisheries, affording employment for 2,000 men. Lobsters and clams are taken in immense quantities along the coast. The canning of vegetables, lobsters and clams is extensively carried on, the whole value of such products in 1875 being estimated at \$1,842,000. The product of cotton goods in the same year amounted to \$12,151,750.

The numerous harbors of Maine offer the best facilities for commerce. Several of these harbors are among the best on the whole Atlantic coast; that of Portland especially is easy of access, deep, large, and well protected, and is often unobstructed by ice when harbors farther west and south are frozen over. The ports of entry are Houlton, Eastport, Machias, Ellsworth, Castine, Bangor, Belfast, Waldoborough, Wiscasset, Bath, Portland, Falmouth, Saco, Kennebunk, and York. The imports from foreign countries in 1873-74 amounted to \$3,628,425; amount of exports in the same year, \$5,372,102. The chief articles of import were coal, fish, sugar, iron, molasses, and wool; while those of export were cotton goods, canned vegetables, etc., boots and shoes, lumber, bacon, hams, and lard. The whole number of vessels entering from foreign countries in the same year was 750, of 363,196 tons burthen; number of clearances, 1,489, of 512,287 tons; number of registered, enrolled and licensed vessels, 3,221, of 585,842 tons. In the coasting and fishery trade were entered at the same time 2,291 vessels of 1,124,127 tons, and cleared 1,526 of 847,178 tons. In 1873 there were built in the state 276 vessels of 89,817 tons.

In 1875 Maine had 945 m. of railroad, controlled by 19 different corporations. The most important of these roads are the Atlantic and St. Lawrence, European and North American, Maine Central, Portland and Kennebec, and the Portland, Saco, and Portsmouth. Lines of steamers ply regularly between the largest cities of the state and Boston; also between Portland and New York, St. John, N. B., and Halifax; and in the winter between Portland, Liverpool, and Glasgow.

In 1874 Maine had 64 national banks, with a capital of \$9,840,000, and an outstanding circulation of \$7,946,576. The number of savings banks was 58, with \$31,051,963 of deposits. There were at the same time 120 insurance companies doing business in the state. The public indebtedness of the state in 1875, after deducting the sinking fund held for its payment, was \$5,574,378. The cash value of real and personal property in the state in 1874 was estimated at \$254,000,000.

The public institutions are the insane hospital at Augusta, the state prison at Thomaston, the reform school near Portland, the industrial school for girls in Hallowell, the orphan asylum in Bangor, the military and naval orphans' asylum at Bath, and the Maine general hospital at Portland. There are no state institutions for the care of the deaf and dumb or the blind, but the state arranges for their care in the institutions of other states.

The permanent school fund, derived from the sale of wild lands belonging to the state amounts to about \$370,000. The revenue for the support of public schools is derived in part from this fund and in part from taxation. The cost of maintaining the schools in 1874 was \$1,237,778, the sum being apportioned among the several towns according to the number of persons therein of school age. According to the latest reports, the number of persons in the state of school age was 225,219; registered in summer schools, 122,458, with an average attendance of 98,744; in winter schools, 132,333, with an average attendance of 108,478; number of school districts, 4,043;

value of school property, \$3,079,311; male teachers in summer, 161; in winter, 1,928; female teachers in summer, 4,366; in winter, 2,367; average wages of male teachers, per month, \$36.17; of females, per week, \$4.05. The legislature, several years since, established a system of free high-schools, the state defraying one-half the cost of instruction upon certain conditions. The system has worked well. The number of pupils enrolled in these schools in 1874 was 14,820; the amount paid by the state for their support, about \$40,000. There are two normal schools, the western at Farmington, the eastern at Castine; tuition being free to those who agree to become teachers within the state. In 1873 the state appropriated \$17,500 for the support of these schools. Maine has four colleges—Bowdoin college at Brunswick, founded in 1801; Colby university at Waterville (Baptist), founded in 1820; Bates college at Lewiston (Freewill Baptist), founded in 1863; and the state college of agriculture and the mechanic arts at Orono, founded in 1868, and receiving the avails of the public lands appropriated by congress for the purpose. The Congregationalists have a theological seminary, founded in 1820, at Bangor. There are also in the state several flourishing seminaries under the patronage of different religious sects. The number of libraries in the state in 1870 was 3,334, containing 984,510 volumes; of these, 1872, containing over 450,000 volumes, were private. The most important public libraries are the state library in Augusta, and those of Bowdoin college, the Portland institute, the Bangor theological seminary, the mechanics' association of Bangor, Colby university, and Bates college, respectively.

The number of newspapers and periodicals was 65, of which 7 were daily, 1 tri-weekly, 47 weekly, 1 semi-monthly, 8 monthly, and 1 quarterly. In 1874 the daily papers had increased to 9, the weeklies to 56. The religious organizations in 1870 numbered 1326, having 1102 edifices, and property valued at \$5,196,853. The principal denominations were the Baptist, Congregational, Methodist, Freewill Baptist, Protestant Episcopal, Jewish, Christian, Roman Catholic, Second Advent, Unitarian, and Universalists. The legislature, composed of a senate of 31 members and a house of representatives of 151 members, elected on the 2d Monday of September, annually, meets at Augusta, the capital, on the first Wednesday in January. The governor (salary \$2,500) is elected annually, and has the advice of a council of 7 members elected by the legislature on joint ballot. The supreme court, composed of 8 judges, is appointed by the governor and council for a term of 7 years, each judge receiving a salary of \$3,000. The county of Cumberland, embracing the city of Portland, has a superior court of one judge, appointed in the same way. Probate judges are elected by the people of each county for terms of 4 years. Judges of inferior courts are appointed by the governor and council for terms of 7 years. The laws of Maine against the manufacture of and the traffic in intoxicating liquors are very strict, and supported by severe penalties. Liquors for medicinal, mechanical, and manufacturing purposes are sold in the several towns and cities by state agents appointed for the purpose. Husbands are not liable for debts contracted by their wives in their own name, but the latter may be sued for them. A wife may hold real and personal estate separately from her husband, and may convey or devise the same by will.

The electoral votes of Maine for president and vice-president of the United States have been as follows: 1820, 9 for Monroe and Tompkins; 1824, 9 for Adams and Calhoun; 1828, 1 for Jackson and 8 for Adams for president, and 1 for Calhoun and 8 for Rush for vice-president; 1832, 10 for Jackson and Van Buren; 1836, 10 for Van Buren and R. M. Johnson; 1840, 10 for Harrison and Tyler; 1844, 9 for Polk and Dallas; 1848, 9 for Cass and Butler; 1852, 8 for Pierce and King; 1856, 8 for Fremont and Dayton; 1860, 8 for Lincoln and Hamlin; 1864, 7 for Lincoln and Johnson; 1868, 7 for Grant and Colfax; 1872, 7 for Grant and Wilson; 1876, 7 for Hayes and Wheeler; 1880, 7 for Garfield and Arthur.

MAINE, Sir HENRY JAMES SUMNER, LL.D., b. England, 1822; educated at Pembroke college, Cambridge, and afterwards a tutor in Trinity college. In 1847 he was appointed regius professor of civil law in the university, but resigned in 1854 to become reader on jurisprudence at the middle temple. From 1862 to 1869 he resided in India as law member of the supreme government. This office he filled with high distinction, introducing many important legislative reforms. On his return to England he was elected professor of jurisprudence at Oxford, and the next year he was made a member of the council of the secretary of state for India, and was knighted. In 1875 he published as a pamphlet a lecture delivered at Cambridge on *The Effects of Observation of India on Modern European Thought*. In 1877 he was elected master of Trinity hall, and in 1878 resigned his professorship. Sir Henry published in the *Cambridge Essays* in 1856, *Roman Law and Legal Education*; but his other works are devoted to subjects upon which he is of the highest authority, the origin and development of institutions, the condition of primitive society, and the growth of law and legal conceptions. His *Ancient Law* appeared in 1861; his *Village Communities* in 1871; *Lectures on the Early History of Institutions* in 1875; and *Modern Theories of Succession to Property* in 1878.

MAINE DE BIRAN, FRANÇOIS PIERRE GONTHIER, 1766-1824; b. France; was attached to the body-guard of Louis XVI., and in the latter part of 1789 was involved in some of the disturbances in Paris, but was not concerned in the revolution which followed. Under the first empire he was appointed to a sub-prefecture, and was a

member of the legislature. He opposed the policy of Napoleon during the latter part of his reign, and became a legitimist with the advent of the restoration. He was made a deputy and a counselor of state, retaining his seat in the legislature from 1818. He wrote much in a philosophical vein, contesting the opinions of Condillac, and developing a system of his own which achieved a considerable reputation. M. Cousin edited an edition of his works which was published in Paris, 1841, in 4 vols.; and an account of his life and opinions appeared in 1857, written by Naville.

MAINE LIQUOR LAW. See TEMPERANCE, *ante*.

MAINTENANCE (*ante*), in law, an intermeddling by a person in a suit in which he is not concerned, as by giving money to another to carry on such suit, by hiring counsel for him, or assisting him in any unauthorized way. But persons between whom a certain relationship, or a certain relation created by law, exists, may give assistance to each other in suits in which they have respectively no interest. Thus, a husband may assist his wife, or a landlord his tenant. A lawyer may give professional assistance to a party in such suit, but he is not justified in giving pecuniary aid. The old common law rule in regard to the prohibition of maintenance has been greatly relaxed; and aid of the party to a suit is not now generally illegal. For instance, an agreement between a lawyer and his client to share the sum recovered in a particular suit is good, as a rule, in this country, though strictly prohibited by the older law. See CHAMPERTY.

MAIPURES, or MAYPURES, the generic name of a number of Indian tribes of South America who live mostly on the Orinoco and Negro rivers. The best known tribe is the Moxos, who were conquered by the ancient Peruvians and were further advanced in civilization than the others, most of whom were cannibals. Many of the Moxos were converted to Christianity at an early date. A grammar and vocabulary of their language was written by father Pedro Marban in 1701.

MAISONNEUVE, JULES GERMAIN FRANÇOIS, b. Nantes, France, 1810. A distinguished physician and author of medical works; commenced practice in Paris in 1830; in 1835 opened a school for operative practice; and in 1840 became one of the surgeons of the hospitals and member of the society of surgeons. He has since been surgeon of the hospitals of *Cochin de la Pitié*, and in 1875 surgeon of the *Hotel-Dieu*. He ranks at the head of the brilliant school of modern surgery in France. His operations, inventions and improvements in surgical instruments have been remarkable. Though his courses in the hospitals are the most prized instructions in surgery, he has the disadvantage of being deficient in the use of language orally, though remarkably clear and concise in writing. His works are numerous, and of the highest authority of their date.

MAISONNEUVE, PAUL DE CHOMEDEY, Sieur de, b. in Champagne, France, early in the 17th c.; d. in Paris, 1676. In 1641 he led a colony of religionists to Canada and left them in Quebec; was himself made governor of Montreal, and founded that city in 1642, though the point had been named by Jacques Cartier seven years before. His administration was marked by energy and ability, and the good-will of the Indians. He resigned in 1669 and returned to France.

MAISTRE, XAVIER. Comte de, 1764-1862; b. in Chambéry, Savoy. When Savoy was conquered by the French during the first revolution, Maistre entered the Russian service and remained in it. During a visit to Italy in 1794 he was occupied with work in water-color and India ink drawings, and began in a desultory way the composition, entitled *Voyage autour de ma Chambre*, which has taken a place among the classics of French light literature. In 1811 his work entitled *Le Lépreux de la Cité de l'Aosta* exhibited his genius and his sympathy with real misery. *Prisonniers de Caucase* and *Praseovie, ou la Jeune Sibérienne*, were translated and published in Philadelphia in 1826. The *Expédition nocturne autour de ma Chambre*, published 1825, was his last work. An edition of his works in three volumes appeared in Paris in 1822. He d. at St. Petersburg.

MAITLAND, SAMUEL ROFFEY, D.D., 1792-1866; b. London; studied at Trinity college, Cambridge, without graduation, as he was not a member of the church of England; studied law, and admitted to the bar at the Inner Temple in 1813; studied theology and was ordained in 1821; held perpetual curacy of Christ church, Gloucester, 1823-29. Resigning this he devoted himself to literature. In 1837 he was appointed librarian to Dr. Howley, archbishop of Canterbury, and keeper of the Lambeth MSS., retaining the office until the death of the archbishop in 1848. He edited for several years the *British Magazine*, in which he wrote valuable articles, chiefly on prophecy, church history, criticism, etc. His principal works are: *An Inquiry into the Grounds on which the Prophetic Period of Daniel and St. John has been supposed to consist of 1260 years*; *Letters on the Voluntary System*; *The Dark Ages, a Series of Essays intended to illustrate the state of Religion and Literature in the 9th, 10th, 11th, and 12th centuries*; *Essays on the Reformation in England*; *Erudin, or Miscellaneous Essays on Subjects connected with the Nature, History, and Destiny of Man*; *An Essay on the Mystical Interpretation of Scripture*; *Strictures on Milner's Church History*; *Facts and Documents illustrative of the Doctrines and Rites of the ancient Albigenses and Waldenses*; *Sacred Art*; *Realism in Modern Art*; *Superstition and Science*; *Illustrations and Inquiries relating to Mesmerism*. He wrote also numerous pamphlets, letters, and reviews. He showed "great erudition,

great power of reasoning, precision, and perspicuity of statement, and a style of masculine strength, simplicity, wit, and polish."

MAJOR, GEORG, D.D., 1502-74; b. Nuremberg, Germany; studied theology under Luther and Melancthon; was successively rector at Magdeburg in 1529; superintendent at Eisleben in 1536; professor of theology and court-preacher at Wittenberg in 1539; represented the Protestants in colloquy at Regensburg in 1546. When the Smalcald war broke out he left Wittenberg, and was appointed superintendent and court-preacher at Merseburg, but at the close of the war, the next year, he returned to Wittenberg. In 1552 he was made superintendent of Mansfeld churches. In 1551 he actively supported the doctrine of the Leipsic interim, that good works were necessary to salvation, in opposition to the strict Lutherans who denied that proposition. Amsdorf assailed him, declaring that good works were or might be detrimental to salvation. He was joined by the clergy of the district, and the count of Mansfeld being of the orthodox party. Major removed to Wittenberg. The doctrines advocated by Major were finally branded as heretical in the *Corpus Doctrinæ Prutenicum*, and were rejected by the compilers of the *Formula Concordiæ*. Towards the close of his life he became involved in the Crypto-Calvinistic controversy (q.v.). A portion of his works, comprising homilies and commentaries on the Gospels and Pauline epistles, was published in 1569 in 3 folio volumes.

MAJOR, RICHARD HENRY, b. in London, 1818; was made keeper of the maps and charts in the printed book department of the British museum, 1844; served as honorary secretary of the Hakluyt society from 1849 to 1858, editing therefore the *Select Letters of Christopher Columbus*; the *Histoire of Travaille into Virginia Britannica*, and *Notes upon Russia*, from the Latin of Herberstein, and writing introductions to Mendoza's *History of China* and the earl of Ellesmere's *Tartar Conquerors of China*. At a later period he edited for the same society *India in the Fifteenth Century and Early Voyages of Terra Australis*. In 1861 he brought to light documents in the British museum showing the discovery of Australia by a Portuguese navigator in 1661, for which he was knighted by the king of Portugal. In 1868 he published the *Life of Prince Henry of Portugal, Surnamed the Navigator*—a work of great value. In later years he has been honorary secretary of the Royal geographical society and a frequent contributor to its *Journal*.

MAJORANI, GAËTANO. See CAFFARELLI, *ante*.

MAKART, HANS, b. Salzburg, 1840; studied art in Munich, following the school of Piloty; first became noted as an historical painter about 1868. He is a member of the Munich academy, and a professor of art in Vienna, where he has established his studio. His first great work was his "Catharine Cornaro," which was exhibited in the Austrian collection in Memorial hall, during the Centennial exhibition. It was sold for \$12,500, and is now in the possession of the Berlin national gallery. His next most important work was the "Entrance of the Young Emperor Charles V. into Antwerp," which was exhibited in 1878, and attracted general attention. He also painted "The Gifts of Sea and Earth," two paintings of still-life, which were in the Centennial exhibition. Makart's work is characterized by a mastery in the use of color, warmth in the combinations effected, and startling contrasts; strongly reminding one of the Venetian school of Giorgione and Tintoretto. The *Portfolio* concluded some severely critical remarks on his "Catharine Cornaro" as follows: "There are few painters of the present day who have enough daring to handle such vast material, to dispose fearlessly and with proper relation so large a number of figures; and there are still fewer who possess the skill in execution which renders Herr Makart's picture a surprising and, in some sense, admirable performance." Another critic, writing for the same publication, says: "Herr Makart, by birth Austrian, but trained under Piloty, is imbued with the romance and voluptuousness of Venezia. He is, in fact, the Veronese of Vienna."

MAKI. See LEMUR, *ante*.

MALABAR (*ante*), a country lying on the western coast of India, and extending from cape Comorin to the river Chandragiri in 12° 30' n. lat. The British province of Malabar is a portion of this tract between 10° and 13° n. lat., bounded n. by the province of Canara; s. by the territories of the rajah of Cochin; w. by the ocean, and e. by the chain of the western Ghauts. Between these and the sea Malabar lies, extending 200 m. along the coast, with an average breadth of 40 miles. The country may be divided into two parts, the first of which lies on the sea-coast about 3 m. wide, and consists of a poor sandy soil, covered with cocoanut trees. Near the termination of the low hills, which are offsets of the Ghauts, the soil is better, and is planted with rice. The sandy coast is remarkably intersected by inlets of the sea, which often run for great lengths parallel to the coast, receiving the various mountain streams, and communicating with the ocean by different narrow shallow openings. In other places the fresh water descending from the mountains into the low lands within the downs upon the sea-coast in the rainy season, totally overflows them as they have no outlet, and when the water is evaporated, these lands are cultivated and yield rich crops of rice. The second and most extensive portion of Malabar is in the vicinity of the Ghauts, and consists of low hills with narrow valleys between, which are rendered very fertile by the fine particles of mold washed down from the hills. The hills are low, their summits are level, dry and bare, presenting large surfaces of naked rock, with remarkably steep sides. These sides having the

best soil are formed into terraces, and highly cultivated. The uplands are barren, and not much cultivated, and the inhabitants reside chiefly in the valleys and extensive ravines, upon the banks of the rivers and inlets. There are no large rivers, but innumerable small streams water the country. The climate though hot is generally healthful. The thermometer generally rises to about 90° in the shade, and seldom falls below 70°. The hot season is from February to May, and the wet from May to October. The low country of Malabar and the whole region under the western Ghauts are excessively hot in February, and the vapors and exhalations are so thick that objects can with difficulty be distinguished at a distance of 5 miles. At the commencement of the western monsoon the rains fall very heavily both in the low country and on the mountains. These rains wash away the soil, leaving nothing but loose stones and sand on the hills. Forest trees abound, sometimes intermixed with corn-fields and plantations of fruit trees. The teak is produced in great abundance. Sandal wood not produced in Malabar, grows e. of the western Ghauts, and is exported from the ports of Malabar. Coconut trees abound. Black pepper is grown extensively, and is the chief export by Europeans who purchase about five-eighths of what is raised, and send it either directly to Europe, or to Bombay and China. The remainder is exported by native traders to the bay of Bengal, Surat, Scinde, and other places in n.w. India, and a portion is sent to the Arabian ports of Muscat, Mocha, and the British port of Aden. Ginger, betel-nuts, cardamoms, turmeric, and arrow-root are grown. Cardamoms grow on the face of the mountains in forest-lands. Within a few years the English have cultivated coffee on plantations situated on the slopes of mountains 2,000 ft. above sea-level. They obtain land either of the government or of natives, and not much capital being required, and the wages of native laborers being small, the profits are large. Rice is raised, but not enough for home consumption. Ginger is largely cultivated and exported to Europe. The animals are the elephant and bison in the forests, and some tigers, leopards, deer, bears, hogs, porcupines, monkeys, and squirrels. There is an animal of the ox species, called the *gayal*, found in the recesses of the mountains, 10 ft. high, with beautiful horns. There are but few horses. There is a small bullock used for tilling the ground and drawing vehicles, but not much in the transportation of goods, that being done by porters. Poultry has been introduced by Europeans, and common fowl now are abundant. Slavery existed in Malabar until a legislative act was passed in 1843 abolishing it throughout the British possessions. Malabar being intersected by many rivers, and inclosed by high mountains has been less disturbed than other parts of India by Mohammedan invasion, until in 1763 it was invaded and conquered by Hyder Ali. On this account the manners and customs of the Hindus here have been less changed than in other parts of India. The population consists of Hindus, Mohammedans, Christians, and some Jews. The Hindus constitute the great proportion. They are divided into the following castes: The Brahmins called Namburies are the highest, and another more numerous class of Brahmins called Puttars. The Nairs are the next, and then the Teers or Tiars who cultivate the land, and are freemen. Lastly the Patiards or Poliars, who were formerly slaves. The most remarkable caste is the Nairs who claim to be born soldiers, though they are of various ranks and professions. They are of 11 ranks, and form the militia of Malabar under the Brahmins and rajahs. They are very arrogant and formerly a Nair did not hesitate to strike down a cultivator or a fisherman who defiled him by touching his person, or a Patiard who did not turn aside when meeting him. The ancient Hindu state of property prevailing in Malabar, most of the land cultivated or uncultivated belongs to individuals, who have an absolute control of it.

The Brahmans, Nairs, and Tiars are well proportioned, handsome, and of olive complexion. The Mohammedans, called Moplays, are about one-fourth of the population, and are descendants of Hindu mothers and Arab fathers who settled in Malabar in the 7th or 8th century. The aboriginal natives generally live in separate houses, surrounded with gardens; but the villages are the work of foreigners, the houses being built of mud, neatly smoothed, and whitewashed or painted. The chief towns are Calicut, Tellichery, Cananore, and Ponany. Bellore, 7 m. s. of Calicut, where Gama landed in 1498, is connected by a railway with Madras. The Portuguese then settled in Malabar, and the Dutch in 1663. The original name for Malabar in Sanskrit was *Kevala*. It is supposed that Malabar was very early conquered by a king from beyond the Ghauts, and that the Nairs were established there by the conqueror or brought in by the Brahmans as a military body to support the government; that in time they obtained settlements, and the chiefs became rajahs who governed the country like independent princes, until the invasion of Hyder Ali in 1763. He conquered and plundered the country, and expelled all the rajahs except those who submitted to him. In 1782 he appointed a deputy who made further progress in subduing and settling the country. In 1788 his son Tippoo proposed to the Hindus to accept the faith of the prophet, and began to levy large contributions on them, compelling many Brahmans, Nairs, and others to be circumcised. This produced a rebellion which his vigor soon suppressed. When the war broke out between Tippoo and the English in 1790, the rebellious rajahs and Nairs, who had fled from his persecution to the jungles, joined the British army, and Tippoo was driven from the country. In 1803 Malabar was incorporated in the Madras presidency. Christianity early made considerable progress in this part of India. The Nestorians established churches there in the 5th or 6th century. When the Portuguese landed in 1500 they found not only a

Christian king, but a large body of professing Christians, and upwards of 100 churches. Buchanan at his visit in 1807 found 44 churches. The Romanists from Goa established themselves here in the beginning of the 16th century. The whole number of Christians on the Malabar coast, including the Nestorians or Syrians at the present time, is computed at 200,000. There are also about 30,000 Jews. The population in 1850 was 1,514,909. The country is tranquil and prosperous.

MALACHI, PROPHECY or (*ante*), has a place in the canon of Scripture which has never been disputed and is explicitly confirmed by at least six quotations in the New Testament. I. As to the time when it was written: That Malachi was contemporary with the latter part of Nehemiah's administration is argued from the similar state of things mentioned in the prophecy and the history. 1. Malachi speaks of the governor of the Jews by the same name as that given to Nehemiah by the Persian king. 2. Malachi reproves the priests for having neglected, despised, and profaned the worship of God; and Nehemiah relates that, on his return a second time from Persia to Jerusalem, he found that a grandson of the high-priest had married a daughter of Sanballat, the notorious adversary of the Jews' religion; that the high-priest had established Tobiah the Ammonite in the precincts of the temple; that the priests and the Levites were defiled, their sacred covenant despised, and the Sabbath profaned. 3. Malachi charges the whole nation of the Jews with having robbed God by withholding the tithes and other appointed offerings; and Nehemiah relates that during his absence the portions of the Levites had not been given them, and that consequently they and the singers appointed to conduct the services had gone home to their fields. 4. Malachi denounces judgments on the nation for dealing treacherously with the wives of their youth and marrying strange wives; and Nehemiah relates that the Jews had married wives of Ashdod, of Ammon, and of Moab, and that their children spake half in the speech of Ashdod, having lost the knowledge of their fathers' language. II. These indications of the time when the prophecy was written explain also its contents, which are: 1. A declaration of God's love to Israel as proved by their history; 2. An address to the priests rebuking them for their heartless, mercenary, and corrupt services, threatening them with judgments if they persisted in their sins, and describing the character of a true priest in bright contrast with their own; 3. A rebuke of the people for their marriages with the heathen and their rejection of the lawful wives of their youth, who were left to weep at the altars of God, the institutor of marriage at the beginning as a perpetual covenant; 4. An announcement of the sudden coming of the Lord, whom they claimed to seek, but who in an unexpected coming would sit in judgment against all transgressors, supplying by his own omniscience swift testimony against them; 5. A call to repentance, with the promise of abundant blessings to all who obey; 6. A testimony that there were some who feared God, and an assurance to them that they would always be precious in his sight; 7. A renewed announcement both of the appointed judgment and of the promised Savior, before whose great and dreadful day one in the spirit and power of Elijah the prophet would come calling fathers and children to repentance as the only way of avoiding the hastening doom.

MALACOSTRACA (Gr. *malakos* soft, *ostraken*, shell), Aristotle's name for crustaceans. The malacostrea are now classified as a sub-class of crustacea, which comprises two divisions, *edriophthalmata*, and *podophthalmata*. In the first division the eyes are sessile, and the body not generally protected by a carapace. It comprises two orders, amphipoda and isopoda. The eyes are generally compound, but are sometimes simple, and placed on the sides of the head, which is nearly always distinct from the body. The typical number of feet is seven pairs. The amphipoda include the whale-louse (q.v.) and the sand-hopper (q.v.). A section of this order, *lepidopoda*, has been regarded as a distinct order, but the pretension has been withdrawn. In isopoda the respiratory organs are not thoracic as they are in amphipoda, but are attached to the inferior surface of the abdomen. There are two eyes formed of a collection of simple eyes, or are sometimes really compound. The young isopod is developed within a larval membrane without appendages, which after a time bursts and sets free the young, which resemble the adult in most respects, but have only six pairs of limbs instead of seven. Like the amphipoda, some are aquatic, and some terrestrial. Milne-Edwards divides the isopoda into three sections, 1, *natatory*, 2, *sedentary*, and 3, *cursorial*. In the first section some of the animals are parasitic, and some are not. In the second section they are all parasitic, generally within the gill chambers or upon the ventral surfaces of decapod crustaceans, as shrimps and others. The third section, the cursorial, includes the wood-louse (q.v.) and limnoria (q.v.). The second division of malacostrea, *podophthalmata*, have compound eyes, supported upon movable stalks, and a body completely protected by a carapace. There are two orders, stomapoda (q.v.) and decapoda (q.v.). see also INVERTEBRATE ANIMALS, LOBSTER, CRAB, and SHRIMP.

MALAKANS, a religious sect in the Russo-Greek church. The name in Russian is Molocani, i.e., milk-eaters, who contrary to the rule of the eastern church take milk on fast-days. The term Malakan is a term of reproach. They prefer to be called *Gospel-men*. A Prussian prisoner of war settled about the middle of the last century in a village of southern Russia, and spent his time visiting from house to house, and explaining the scriptures to the people. After his death they acknowledged him as the founder of

their new belief. The Malakans receive the Bible as the word of God. They believe in the doctrine of the Trinity, the fall of Adam, the resurrection of Christ, receive the ten commandments, and forbid idolatry and the worship of saints. They consider the taking of an oath sinful, and enjoin a strict observance of the Lord's day. They firmly believe in the millennium. A member of their body, Terenti Beloreff, a fanatic, announced in 1833 that Christ would come in two and a half years. Many Malakans abandoned their callings, and awaited the event with fasting and prayer. Beloreff believed that he himself, like Elijah, would ascend to heaven on a certain day in a chariot of fire. Thousands of Malakans came from all parts of Russia to witness the miracle. He appeared seated in a chariot, ordered the multitude to prostrate themselves, and then, extending his arms as an eagle does its wings, he sprung into the air, fell on the heads of the gazing crowds, was seized and dragged to prison as an impostor. He died soon after, insanely declaring himself the prophet of God. But many of the Malakans still believe in his divine mission. Many of his followers afterwards emigrated to Georgia, in western Asia, and settled in sight of mount Ararat, expecting the millennium. This sect spend whole days and nights in prayer, and have all things in common. They deny the sanctity and necessity of fasts, especially for men who have to work. They oppose popes and monks. Under the late emperor Nicholas they were severely persecuted, 16,000 men and women being seized by the police, arranged in gangs, and driven with rods and thongs across the steppes and mountains into the Caucasus. A great many fled across the Pruth into Turkey, where the sultan gave them a village called Tulcha for their residence. Dixon in his *Free Russia* has described this sect.

MALAKHOFF, or MALAKOFF. See SEBASTOPOL, *ante*.

MALAMOCCO. See VENICE, *ante*.

MALAN', CÉSAR HENRI ABRAHAM, D.D., 1787-1864; b. Switzerland; educated at the Geneva academy, and ordained to the ministry in 1810. He was at once appointed preacher to the cathedral, and a regent of the academy. The Calvinistic faith in Geneva had for some years been growing more and more rationalistic, and the presbytery of Geneva had issued an edition of the New Testament in which all passages in relation to the divinity of Christ were so changed as to bear a Socinian interpretation. Malan denounced the alterations, and took high evangelical ground; and the differences between him and the ecclesiastical authorities were so great that he left the established church in 1818. For a time he preached at his own house, but after 1820 he preached in an independent church of his own called La Chapelle du Témoinage. He was also active in many other directions. He founded a theological school at Geneva, and introduced Sunday schools into Switzerland. His followers were nicknamed MÔMIERS, which see. Malan published, among other books, *Les Mômiers Sont-ils Invisibles*, 1828; *Les Chants de Sion*, 1826; *Le Témoinage de Dieu*, 1833; and *L'Eglise Romaine*, published in English at New York in 1844. He was a man whose zeal for truth, fervor of spirit, and active beneficence have left a lasting impress on his own land and through central Europe.

MALAN', SOLOMON CÉSAR, D.D., b. England, 1812; a son of Dr. César. He was educated at Oxford, and in 1838 went to Calcutta as professor of the classics in Bishop's college. While in India he was ordained beacon, and acted as secretary of the Asiatic society of Bengal. Soon after his return to England he was ordained priest, and made vicar of Broadwindsor in 1845, where he remained till 1871, when he became prebendary of Sarum. He has published many books, of which we may mention: *A Plain Exposition of the Apostles' Creed*, 1847; *A Systematic List of British Birds*, 1848; *Who is God in China?* 1855; *The Gospel According to St. John*, translated from the eleven oldest versions, 1862; *A Plea for the Authorized Version*, 1869; *The Liturgy of the Orthodox Armenian Church*, 1870; and *Original Documents of the Coptic Church*.

MÄLAREN, or MÄLAR, a large and beautiful lake of Sweden. It stretches westward from the Baltic, and lies between the laens of Westervas, Upsala, Nycöping, and Stockholm. A peculiarity of this lake is that it consists of several small lakes connected by short channels, which inclose islands to the number of 1300. Although its length is 78 m., and the average breadth 12, hardly a clear sheet of water a mile square through the whole extent can be found. It sends out many branches to the n. and s., which extend a good distance inland. One of them extending northward is 25 m. long. All of these arms and branches are navigable for boats. It is nearly on a level with the Baltic, and numerous steamers ply to and from Stockholm, which is at the eastern extremity, on both sides of the lake. The advantages of the navigation on lake Mälar have been increased by the Södertelge and Strömsholms canals. The former is 2 m. long, and opens a communication with the Baltic; the latter extends from the western end of the lake 50 m. into the interior, and leads to the region of the mines in the lake of Barken, which is 327 ft. above the sea-level. The scenery of the banks is exceedingly beautiful, and there are many villas and country-seats belonging to the residents of Stockholm.

MALARIA (MIASMA, ante), bad air. There are varieties of malaria, the most common or the longest known, or written about, being miasmatic malaria, or marsh miasm, which is regarded as producing the various forms of intermittent and remittent fevers, and, as many believe, yellow fever (see the articles under these titles). Since the more systematic and microscopical investigation of various diseases, it has been shown that

many other diseases, some of which are contagious, are produced by poisoned, infected, or bad air—in other words, by malaria. Air impregnated or polluted by sewer gas is the malaria productive of putrid sore throat or putrid fever (diphtheria) (q.v.), and perhaps the origin of scarlet fever. A form of fever called typho-malarial appears to be caused by a mixture of putrid malaria and marsh miasm, although most authorities do not regard it as a distinct disease, but a mixture. It is thought by some that the term malaria should be restricted to marsh miasm, saying that air which is infected with the seeds of any disease, as, for instance, small-pox, might be called malaria, as well as that which produces diphtheria or putrid fever; but it is fairly conservative and proper to regard as malaria all air which is infected by the products of organic decomposition and putrefaction, whether vegetable or animal, and which in their origin may be so traced, although after being generated they may be contagious.

MALATESTA, the name of an Italian family settled in the Romagna. The family is said to have been founded by a count Carpegna de' Billi, whose violence got him the name of *mala testa*, i. e. "bad head." Their principal branch was the ruling family of Rimini, of which Malatesta, count of Verrucchio, had possessed himself in 1295. He was an active Guelph partisan, as was his son and successor Malestino, who annexed Cesena in 1314. One of his brothers, Giovanni, was the husband of that Francesca, daughter of Guido da Polenta, and mistress of Giovanni's brother Paolo, whose pathetic story is found in Dante's *Inferno*. Malatestino's brother Pandolfo I. succeeded him, and continued the traditional policy of his family, in supporting the pope against the Ghibellines. Malatestino's son Ferrantino succeeded Pandolfo in 1326, but was driven out of Rimini by the pope in 1335; and Pandolfo's sons Malatesta and Galeotto were made joint lords of Rimini. They largely increased the power of the family, bringing under their rule part of Cervia, Fano, part of Fermo, Fossombrone, and Pesaro. Malatesta died in 1364, but Galeotto reigned till 1385, and was succeeded by his sons, Carlo and Pandolfo III. Carlo was a zealous supporter of pope Gregory XII., during the great schism, an opponent of the emperor Sigismund, and one of the ablest commanders of his time. Both he and Pandolfo III. held commands in the armies of the Visconti, dukes of Milan; and next to the Visconti the Malatesta family was at that time the most powerful in Italy. It was connected by marriage with the houses of Urbino and Montefeltro, and it had possession at one time of Bergamo and Brescia. Pandolfo III. died in 1421, and Carlo in 1427, without issue. Perhaps the most celebrated of the Malatesti is Sigismondo Pandolfo, who died in 1468. He was a patron of artists and authors, the founder of a library at Rimini, and a skillful general who fought for himself, for Venice, Naples, Sienna, Florence, and Aragon, and who made war upon the pope and was excommunicated in 1460. He was a son-in-law of Francesco Sforza. The last Malatesta who was lord of Rimini, was Pandolfo IV., driven out by Clement VII. in 1526, when Rimini was added to the dominions of the pope, of whom it had originally been held as a fief. The family was of German origin, and a member of it is mentioned in the early chronicles as being imperial vicar of Rimini under Otho III.

MALAY PENINSULA, or Malacca. The name Malacca having by erroneous usage come to be applied to the British settlement on the s.w. portion of the peninsula rather than to the peninsula entire as it should be, we will describe it under the head by which it is also known, as the Malay peninsula. It is the most southerly part of the continent of Asia, extending from lat. 1° to 12° n., and between long. 98° and 104° e. of Greenwich. It is 775 m. in length n. and s., with an average width of about 100 m., and an area of 75,000 sq. miles. The gulf of Siam and the China sea wash its eastern shore, and the straits of Malacca and the Indian ocean its western.

A range of granite mountains extends northerly the whole length of the peninsula; its highest summits being in the southerly part, between lat. 6° and 7° n., which are 6,000 ft. above the sea. Innumerable rivers flow e. and w. from the mountains, forming bars at their mouths that render them of little value for navigation or harbors. The country between the mountains and the sea has considerable table-land, of fair fertility, and well timbered. But the timber is not of species possessing greatest commercial value. Ebony, sapan, eagle-wood, and the canes of commerce known as Malacca, are the principal. Dense jungles, the broken character of the surface, and occasional swamps, make the country difficult to explore. The Perak on the w., and Pahang, are the largest rivers. There is a small lake between the latter and the English settlement of Malacca. The products of the forests, besides those timbers already named, are caoutchouc, gutta-percha, cocoa-nuts, gums, spices, and resins. The products of the soil are rice, tobacco, sugar-cane, coffee, cotton, bananas, yams, pine-apples, durians, and the mangosteen—the two latter large fruits. Tin mines have been worked in the mountains, but the mining is not prosecuted with increasing production; gold has been found in limited quantities.

The mean annual temperature near the sea is about 80°. There is no winter or rainy season, but rains fall frequently throughout the year, so that the climate is uniformly hot and moist, and subject to frequent fogs and heavy dews. The annual rainfall is about 100 inches. Where the land is swept by sea breezes the climate is healthful. The districts peculiarly subject to malarial disease of a virulent type are local, and are apt to be contiguous to fresh-water streams or marshes. The animals of the peninsula are numerous. There are eight species of the cat family, the largest the tiger and the leopard,

both of large size, numerous, and dangerous. The Indian elephant is here indigenous, and two species of rhinoceros. The buffalo is a native, and is domesticated for riding and for draught. Besides the domestic ox there are two species of wild ox peculiar to the peninsula; a wild and a domestic goat; three species of deer; one small bear; ten species of monkey; and the ant-eater. The bats are the most peculiar of all the animals of the peninsula; one of them, the kalung, or vampire, being larger than a crow, flies high in great flocks, and is destructive of fruit. Sheep, hogs, and some varieties of foreign fowls have been introduced and acclimated. Of birds there are some of great beauty. The *marak*, or wild peacock, the double-spurred peacock, and several species of pheasant are the most remarkable for their plumage. Partridges, snipe, sun-birds, woodpeckers, wild cock, pigeons of numerous species and great variety of size, a brilliant variety of parrots, and kites and hawks abound. Of reptiles there are forty species of snakes, several of them poisonous, particularly the cobra; and the alligator, iguana, and lizards. Fish are abundant and among the finest flavored in the world. They constitute the main food of the people by the seaside. Shell-fish are rare, though shells not containing animals valued for food are large, beautiful, and numerous.

The population of the peninsula is estimated at 500,000, but this is little better than a guess. It is pretty near the geographical center of population of the Malay race, who occupy all its shores, though in the n. part, and especially away from the coast, the Siamese are numerous, and some negroes are found in the interior. The northern part of the peninsula is under the dominion of the king of Siam; the southern has mostly fallen under the sway of the British, whose colony of Malacca (see MALACCA) on the s.w. coast, and Singapore near the s. point, are the local centers of its power. The Dutch ceded the settlement of Malacca and Singapore to the English in 1824, in exchange for concessions in Sumatra and elsewhere. The Malays have been too long renowned for their daring as navigators, and their aggressive piracy, not to have won the consideration of all nations which have come to greatness through the same manifestations of barbarian vigor. Their cruelty and treachery are probably not greater than the cruelty and treachery of European peoples in the centuries succeeding the dark ages; and remembering that the vast and intricate coasts of the islands and countries occupied by the Malays invited all their enterprise to be expended in maritime excursions, and that a forbidding wilderness of jungles and wild beasts repelled enterprise inland, it may not be unfair to place them in the same category of bold rovers as the pirate Norsemen and Danes of our own English ancestry. As to the excessive treachery which has always been attributed to them it is hardly probable that so widespread an opinion is without good basis of fact. Yet those who have of late years had good means of studying their characteristics report that, under kind treatment and fair dealing, they are "transformed into an entirely different character, displaying gratitude, affection, fidelity, and higher sentiments of honor than are found among any other class of natives in India." The vigor and energy of the Malays as seamen and pirates have for centuries made them the terror of the more peaceful East Indians and Mongolians, as well as of the Europeans engaged in commerce with the east. A portion of the inhabitants of the coasts lived at sea rather than upon the land. Their boats, from 20 to 30 ft. in length, were arranged for cooking near the prow, their fishing and other conveniences in the middle, and the sleeping-room in the stern. Thus, with fish for their principal food and the fruits of the shores to be had for the seeking, roving became their daily life, and piracy the natural enterprise of the warlike—as it is of the warlike everywhere—by land or sea. The more civilized of the natives are Mohammedans; the others are pagans of many shades. The former claim to be descended from Malays of Sumatra who migrated into or invaded the peninsula in the 11th or 12th c., and drove the former inhabitants into the mountains. Mohammedanism took root here in the 13th c., and Malacca was the capital for rulers who had embraced Mohammedanism from the year 1276. In the 15th c. the peninsula was an appanage of the king of Siam. In 1511 the Portuguese, under Albuquerque, overthrew the Malayan sultan, and asserted Portuguese dominion.

MALAYS (*ante*) (Mal. *lajo*, Javan. *orang malayu*, traveling men, emigrants), a branch of the Mongoloid race which gives name to a large linguistic family, the Malayo-Polynesian. Stretching from Easter island to Madagascar, and from New Zealand to the Northern Sandwich islands, it covers about 13,000 by 5,000 miles. From the island of Hainan as a center, a curve may be described which will fall inside Borneo and cut across the Malay peninsula. If another circle be roughly drawn from Saigon as a center, including Formosa, the Philippines, Celebes, cutting Sandalwood island, and taking in the Sunda groups, including Java and Sumatra, the half-moon so formed shows the country of the true Malay race, and thence the allied dialects spread out like a fan toward Hawaii and New Zealand. This eastern area is cut across by the Papuans, or Australians and Melanesians, from New Zealand to the Ladrões, and from New Guinea to the eastern Fijis. To the west of the Malay archipelago, southern Ceylon, the Maladirs, and the Seychelles show the probable line of settlement toward Madagascar. It seems at present undetermined how much or how little Malay blood be present in the brown islanders, Polynesians. Wallace, probably best informed of all, considers the Papuans and Polynesians as one in race. Peschel thinks the Australians Papuans of a debased type, and the Sandwich islanders half-blood Malays. Certainly the men of the Ladrões

are half-breeds, and there is a distinct mixture of races all along the curve of contact, so that brown men, as in Papua, are mixed with true Papuans, and black Fijis speak a Polynesian dialect. The whole subject can be rightly understood only by a study of the very curious distribution of the fauna, and of the complicated ocean currents. Wallace, in separating these races, thus describes the Malay by contrast: "The Malay is of short stature, brown-skinned, straight-haired, beardless, and smooth-bodied. The Papuan is taller, black-skinned, frizzly-haired, bearded, and hairy-bodied. The former is broad-faced, has a small nose and flat eyebrows; the latter is long-faced, has a large and prominent nose, and projecting eyebrows. The Malay is bashful, cold, undemonstrative, and quiet; the Papuan is bold, impetuous, excitable, and noisy. The former is grave and seldom laughs; the latter is joyous and laughter-loving; the one conceals the emotions, the other displays them. It would seem that the Malays are a nation of emigrants, who have penetrated as far south-east as New Guinea, yet there seem no traces of an indigenous population. The small and barbarous black race, said to occur at various points within the Malay limit, may easily be explained as etiolated and roving Papuans, like the Australians, while the Alfuros and other supposed differing tribes are probably only brown types of half-breeds. The black races of India differ both in language and physique, notably in the hair. There are indications that the original home of the Mongoloid races, which stretch from Styria to east Greenland and from cape Horn to north Norway, may have been in some of the large islands of the Sunda group. The few Malay traditions locate a former seat of power at Menang Kaibo in Sumatra. How far Brahmanism penetrated, if at all, is doubtful, but Buddhism was introduced probably about the 5th c., and, about the end of the 13th, Islam. Nearly at that time they settled in the Malay peninsula, and started a strong government in Malacca, which was finally broken up by the Portuguese in the 16th century. To some 32,000,000 the relative religious proportions are now about as: Evangelical Christians, 7; Roman Catholics, 88; Mohammedans, 800; Buddhists, 60; Pagans, 45. Their language is the *lingua franca* of east Asia, and they penetrate everywhere as traders and pirates. Travelers differ as to their character, some representing them as gentle and polite, others as treacherous and quarrelsome; both views may not be far from the truth, the ruling races in the settlements being lazy and enervated, while many of the wild tribes are so uncivilized as to have been taken for different races. The Battaks are still partly cannibals.

The linguistic relations are thus tabulated:

MONGOLOID RACE.

MALAY-POLYNESIAN FAMILY.

POLYNESIANS, Eastern Division,	{	a. North,	Hawaii.		
		b. North-east,	Marquesas.		
		c. East,	Tahiti.		
		d. Middle,	Rarotonga.		
		e. West,	{ Samoa.		
		f. South-west,	{ Tonga.		
MELANESIANS, } Middle,	{	Fiji and some dozen neighboring dialects.			
MALAY-JAVANESE, Western,	{	1. TAGALA, Islands,	{	a. North-east,	Ladrones.
		{	b. North,	Formosa.	
			c. South,	Philippines.	
			d. West,	Malagassi.	
			a. North,	Malay.	
		b. South-west,	Javanese.		
		c. South,	Sunda.		
		2. MULAYU-JAWI, Archipelago,	{	d. Many patois of the islands and of savage tribes, orang laoot, orang bajav, etc.	

The Malay tongue (*bahasa jawi*, *mənjawikau*, to talk Malay) is probably a dialect of north Sumatra, of which Jawa is the old name. The old literary alphabet is the Kawi, probably formed from Pali, through either a Birmani or Siamese medium, about the 6th c., is neither crumpled like the one nor rounded like the other, but is easily recognized by its square and nearly identical letters. They are h, n, ch, r, k, d, t, s, w, l, p, d, thick, dh, y, ny, m, g, b, t thick, ng, rl, lr. Vowel sounds: a, æ as in *but*, i, u as in *boot*, e as in *cane*, o, au as in *now*. Originally there were less than a dozen, with few or no aspirates or fricatives, but with the nasals. It is now written in a peculiar Arabic Neskhi, with 29 consonants and 8 vowel sounds. Other alphabets of the family are in Bugi, Manihkásar, Celebes, a new one self-evolved by the Battaks, and one in the Philippines which resembles most a true Indian. Malay literature is rich, but little original.

There is a romantic and mythological poem, founded as usual on the Mahabharata; plays and recitations like the Siamese; love songs and popular songs, simple and most interesting of all; and tales from the Arabic and Sanskrit, including animal-myths, in which the jackal (Sans. *srigala*) plays the chief rôle. The Malay is not an isolated language, yet it has not now the usual flexibility of an agglutinating one, nor must the reader ever expect in such a tongue the idea of either time or regimen; the verbs appear under aspects, as in Russian, and the nouns in relation, as in Hebrew. Roots, supposedly one syllabled, are enlarged by affixes, strong consonants being precessed and the

three nasals inserted or substituted whenever possible. Vowel change plays a great rôle, evolving, with precession, sometimes a dozen words. Interior contraction is the rule. Doubling is carried to its limit; either of the whole word with or without modification; with initial change; with a play upon similar syllables like Basque, or with insertion of a preposition. Prepositions are partly prefixed, partly suffixed, and it is not always easy to say whether they influence most, or exactly in what way, a noun or a verb, as in so-called Semitic participles. Much the same may be said of pronouns. On the whole, the language is easy, soft-sounding, with a nasal clang, and a great capacity for crude metaphor in plays upon words and expressions of complicated relations. Authorities: W. v. Humboldt, *Ueber d. Kancispr.* (1840, 3 vols.); Fr. Mueller, *Ueb. d. Urspr. d. Schrift d. mal. Voelker, Bul. W. Akad* (1865); Waitz, *Anthropol. d. Naturvoelker* (1869, 5 vols.); *The Races of Man*, Oscar Peschel (1876, 1 vol.); *The Malay Archipel.*, A. R. Wallace (1869, 2 vols.); *The Geog. Distrib. of Animals*, A. R. Wallace (1876, 2 vols.); *The Science of Language*, A. Horelacque (1877, 1 vol.).

MALBONE', EDWARD G.; 1777-1807; b. Newport, R. I.; at the age of 17 resided in Providence as a portrait-painter; removed in 1796 to Boston and pursued his profession with success; accompanied Washington Allston to Charleston in 1800, and sailed for Europe in 1801; met in London, Benjamin West, president of the royal society, who urged him to make that city his permanent residence; but he returned to Charleston. For several years he traveled extensively in the United States, and painted miniatures in the chief cities; visited the West Indies in 1806 for his health. His best picture is "The Hours;" the present, past, and future, being represented by three female figures.

MALCOM, HOWARD, D.D. LL.D., 1799-1879; b. Philadelphia; graduated at Dickenson college in 1817; studied theology at Princeton seminary; was ordained, and settled as pastor of a Baptist church at Hudson, N. Y. In 1825-26 he traveled extensively in behalf of the American Sunday-school Union in whose organization he took a prominent part; in 1827 he was pastor of the Federal Street Baptist church, Boston; in 1835 he was sent to visit the Baptist missions in India, Burmah, Siam, China, and Africa; in 1839-49 was president of the college at Georgetown, Ky., and of the university of Lewisburg, Penn., in 1851-59, acting also as professor of mathematics and moral philosophy in both institutions. On account of throat disease he left the university and retired to Philadelphia. In 1841 he received the degree of D.D. from the university of Vermont and Union college, N. Y., at the same time, and of LL.D. from the Lewisburg institution after his resignation. He was one of the founders of the American tract society, and a vice-president from the beginning. He published a *Dictionary of the Bible*, which was often republished in this country and in England; *Travels in South-eastern Asia*; *Index to Religious Literature*; *Nature and Extent of the Atonement*; *The Christian Rule of Marriage*; *Memoir of Mrs. Malcom*; edited also *The Imitation of Christ*; Robert Hall's *Help to Zion's Travelers*; Law's *Serious Call*; Butler's *Analogy of Religion*, with introduction, notes, etc. He has published also several addresses, and contributed many papers to periodicals.

MALCZEW'SKI, ANTONI, 1792-1826; b. Poland; educated by a French private tutor at his home in Dubno, and subsequently a student at Krzemieniec, where he showed a decided aptitude for mathematics. In 1811 he entered the Polish army in the hope of gaining a position which would enable him to marry a cousin with whom he had fallen in love—the family estate, impoverished by his father, a gen. in the Polish and afterwards in the Russian army, being insufficient to justify him in marrying. She married, however, a richer man, in 1812, and Malczewski's character seems to have derived from this disappointment a misanthropy, which is manifest in all his poetry. When Russia took possession of Poland he received an appointment on the suite of Alexander II., but in 1816, in consequence of a duel, left the army and spent the next five years in travel in Switzerland, Italy, and France. In 1821 he settled on a farm in the Ukrain, and during his residence there devoted himself to the study of his native language, which he had long neglected for the French. He had spent what property he had during his travels, his farming experiment proved a failure, and he was dependent on the charity of his landlord for the lodgings in Warsaw where he died. His poem *Maria*, in two cantos, was published at Warsaw shortly before his death. It had been written at his farm in the Ukraine. Received with entire neglect at first, then attacked on the score of its deficiencies in language and versification, it finally took a place in popular favor second only to some of the works of Mickiewicz.

MALDEN, a t. of Middlesex co., Mass., 4 m. n. of Boston, on the Boston and Maine railroad; pop. 7,367; the Malden river furnishes water-power for several factories. There are 2 weekly newspapers, 2 banks, and hotels, schools, etc. It is one of the suburbs of Boston, and has attracted from that city a fine class of business men, who find it a pleasant home.

MALET, CLAUDE FRANÇOIS DE. See MALLET, *ante*.

MALHERBE, FRANÇOIS DE, 1555-1628; b. Caen, France; son of an untitled magistrate. His education was begun at Caen, continued in Paris, and completed by travel under the tuition of a Calvinist, Richard Dinoth, who accompanied him to Heidelberg and Basle. But religious instruction irritated him. He broke with his father, who was

a Calvinist, and found favor with Henry, duc d'Angoulême, to whom he became private secretary at Aix. He was already noted for his critical taste in poetry, though not for his own productions, and acquired a fame for the piquant ill-nature of his wit. Naturally it brought him ill fortune, and for many years after the death of his patron he suffered for means to live. His poem *Larmes de St. Pierre*, published in Paris in 1587, was his first noted work. Near 1600 the attention of Henry IV. was attracted to the poet, who soon after was called to the court, and from that time ranked as the first poet of France. Avarice, wit, in epigram and verse, and terse forms of expression, were his characteristics.

MALICE. While malice, in its ordinary sense, means an evil disposition or state of mind of one person towards another, in law it denotes the intent or purpose which precedes and causes an unjustifiable, illegal act. Malice, in law, is not confined to a particular intent of an act to the injury of a particular person, but to a general intent of injury preceding the unlawful act; thus, if one shoot A., intending to shoot B., he is nevertheless guilty of murder with malice prepense. Malice, in law, is divided, for convenience of proof, into express and implied. Express malice is where the defendant's intent to commit the crime is directly proved; implied malice is where the intent to commit the crime is presumed by the law from the facts, and where a defendant is shown to have intended an act, he is presumed to have intended all the consequences of that act. In the law of torts, malice means the unjustifiable commission of an act injurious to another.

MALICIOUS PROSECUTION, a prosecution, either criminal or civil, by regular process of law, unwarranted by the proved facts, and instituted without probable cause. As the person against whom such prosecution has been brought has been arrested or imprisoned if it were by criminal suit, and has been put to expense if it were by civil suit, he has a right to sue, and, if he can establish the groundlessness of the prosecution, to recover from the person who instituted it. The person who brings an action for malicious prosecution must show that the former action was groundless and is at an end; that it was conducted in regular course of law before a court of competent jurisdiction; and that it was malicious and without probable cause. Probable cause exists when there were such circumstances as would properly justify a man of sound discretion and reason in believing that the defendant committed the act for which the prosecution was begun. In the absence of probable cause, malice will be inferred; but if it be conclusively shown that the prosecutor acted in good faith, evidence of actual malice must be given. But, on the other hand, if probable cause be shown, proof of actual malice will not maintain an action. The guilt or innocence of the person prosecuted does not affect the question of probable cause, which depends upon the evidence of the existence, in the prosecutor's mind, of a belief, founded upon reasonable grounds, of the guilt of the accused person. What constitutes probable cause is a mixed question of law and fact; that is, if there be no dispute as to the facts, the court decides whether those facts constitute probable cause; but if the facts are disputed, the jury are to find the facts, under instruction from the court as to what facts are sufficient to make out probable cause.

MALIGNANT DISEASES, a name applied to those affections of the animal system characterized by a disposition to the formation of products which have the power of propagation at the expense of the normal tissues, or which so poison the blood that it soon becomes unfit to maintain life. Some of these diseases are tumors (q.v.), and come within the province of the surgeon, while others are the subjects of the physician. The principal malignant tumors are cancer (q.v.), and sarcoma (q.v.). The term malignant applied to diseases not surgical is sometimes rather indefinite, although in some cases the application is entirely appropriate. Scarlet fever, when of a very severe form, with sloughing of the affected tissues of the throat, and with blood-poisoning to the extent of producing death in 48 hours, is truly called malignant; but when less severe, although very dangerous, it is often called semi-malignant, and most cases are characterized by more or less tendency to malignancy. So in diphtheria, the severe cases, and which are more properly called putrid fever, or malignant sore throat, are essentially malignant. Asiatic cholera (q.v) is a malignant disease, and one of its names is malignant cholera. Malignant pustule (q.v) is also a malignant affection, but according to John Hunter's definition it would, perhaps, come under the head of tumor. One form of intermittent fever (q.v.) is truly malignant, as in some cases it is incurable, poisoning the blood and affecting the nervous system in a really malignant manner. There are forms of small-pox which are called malignant, but the term in this disease is of rather indefinite application, the disease not being essentially malignant, and only taking on that character because of the *excessive amount* of morbid matter, whereas the poison of diphtheria and of malignant or pernicious intermittent fever appears to possess intrinsic malignancy independent of quantity.

MALLARD. See DUCK, *ante*.

MALLET, PAUL HENRI, 1730-1807; b. Switzerland. In 1752 he became professor of French literature in the university of Copenhagen, and gave his attention to the origin, antiquities, and mythology of the ancient peoples of the north, publishing the results of

his study in the *Introduction à l'Histoire du Danemark*, published in Copenhagen, 1755-56. Returning to Geneva in 1760 to fill the chair of history in the academy, he became a member of the council of two hundred in 1764; visited Italy and England in 1766-67, and was charged by the queen of England to write the history of the house of Brunswick; in 1792 was obliged to leave Switzerland on account of his aristocratic affiliations; returned in 1801. His works, in addition to that noted above, are: *Mémoire sur la Littérature du Nord*, 1759-60; *Monuments de la Mythologie et de la Poesie des Celts*; *De la Forme du Gouvernement Suedois*; and several works on Swiss history, books of travel, and a Swiss dictionary.

MALMAISON, LA, a village 7 m. w. of Paris, with many historical souvenirs. The name is derived from the fact that it was a favorite resort of robbers in the 9th c., whose depredations in the neighborhood gave their place of sortie the name *malu mauseo*. In the 13th c. it was but a part of a farm; in the 14th it was attached to the property of the abbaye St. Denis. Occupied successively by families of little note during succeeding centuries, it happened to be purchased in 1798 by the widow Josephine Beauharnais, who paid about \$32,000 for the property. The charms of her society there attracted not only the general Bonaparte, but much of the most elegant society of France in 1798-99. The place was tastefully improved, and became the meeting place for poets, authors, politicians, and the military celebrities of the day. Some of the most beautiful and fascinating women of France aided Josephine to make it one of the centers of a society which sought to reproduce the courtly manners of old France, with the advent of the new military era of Napoleon, who here wooed the future empress. It was largely through her fine tact in making powerful friends at Malmaison that Napoleon was enabled to make the *coup d'état* in 1799 which made him first consul. After her marriage Josephine continued to embellish the park with gardens, summer-houses, grottoes, waterfalls, lawns and parterres and farm and shepherd cottages; and the chateau was greatly improved in many ways and made interesting by a library and the choicest works of art and materials for pleasure, until it finally became a little palace. After Josephine became empress Malmaison was little occupied, until the divorce in 1809, when she retired to it, and kept up a little court. Alexander of Russia visited her there just before her death in May, 1814. After Napoleon's return from Elba he went to visit the scene of his first love, and two months later, after the defeat of Waterloo, he passed five days there with Hortense de Beauharnais, ex-queen of Holland. The property then reverted to her son, Eugène de Beauharnais. In 1826 it was purchased by a Swedish banker, Hagerman; in 1842 by queen Maria Christina of Spain for 500,000 francs, and in 1861 by Louis Napoleon for 1,500,000 francs, and by him improved and restored to much of its ancient beauty.

Among the paintings most interesting at Malmaison is a portrait of Josephine by her daughter Hortense; and one of Bonaparte at Malmaison by D'Isaby.

MALMESBURY, JAMES HARRIS, first earl of, 1746-1820; b. England; son of James Harris, the author of *Hermes*. He was educated at Winchester, Oxford, and Leyden, and, after traveling on the continent, was appointed, at the age of twenty-one, secretary of the Spanish embassy through the influence of lord Shelburne. He was acting as *chargé d'affaires* at Madrid, at the time of the dispute between England and Spain in regard to the Falkland islands, and he displayed such skill in the negotiations in this affair, that, in 1771, he was appointed minister-resident at Berlin, where he remained for four years. In 1777 he was made ambassador to Russia, and in 1780 he received the order of the bath. The state of his health compelled him to leave St. Petersburg in 1784, and he soon accepted from the Pitt ministry the post of minister to the Hague, to which it had been the intention of Fox, to whose party he belonged, to send him. There, in 1788, he succeeded in negotiating a treaty of alliance between Holland and Prussia; and in acknowledgment of his services was made baron Malmesbury the same year. Returning to England he entered parliament, of which, in spite of his long absences, he had been a member since 1770. He was a whig till 1793, when he became a supporter of the administration, and Pitt sent him once more to negotiate a treaty between England, Prussia, and Holland, a mission which he successfully discharged. In 1794 he negotiated the marriage between the prince of Wales and Caroline, daughter of the duke of Brunswick. In 1796 he went to Paris and in 1797 to Lisle on fruitless negotiations for peace with the French republic; and these were his last missions, as he deemed himself incapacitated by a growing deafness from taking further part in public affairs. In 1800 he was made earl of Malmesbury and viscount Fitzharris.

MALMESBURY, JAMES HOWARD HARRIS, third earl of; b. England, 1807; grandson of the first earl. He was educated at Eton and Oxford; was returned to parliament as a conservative in 1841, but succeeded his father in the peerage the same year. He was secretary for foreign affairs in lord Derby's first administration, and was efficient in bringing about the recognition of Louis Napoleon by the French empire. Lord Malmesbury occupied the same position in the second cabinet of lord Derby, when he endeavored to prevent the war between France and Italy, and Austria. When Lord Derby formed his third government in 1866 he declined to be foreign minister on account of his health, but became lord keeper of the privy seal, remaining in office till 1868. From 1874 to 1876 he was again privy seal. He edited *The Diaries and Correspondence* of his grandfather, 1844; and *The First Lord Malmesbury and his Friends*, 2 vols. 1870.

MALMÖ, or MALMÖHUUS, a Swedish province or län on the Baltic; 1852 sq. m.; pop. '73, 322,175. Its capital city, bearing the same name, is 16 m. s.e. of Copenhagen, and has over 25,000 population, situated on the sound. The principal export of the province is grain; horses and cattle are bred in large numbers, and the city is well supplied with schools of a high grade, and is very prosperous.

MALONE', the capital of Franklin co., N. Y., on the Salmon river and the Ogdensburg and Lake Champlain railroad, midway between Ogdensburg and Rouse's Point. Pop., 7,186. It is the center of a prosperous agricultural district and of a large trade. It has well-established churches, excellent schools, two banks, and two newspapers.

MALTHA, a Greek name meaning soft wax, originally applied to a mineral fat from Kirwan, having a resemblance to wax, probably composed of paraffine; but now applied to certain kinds of bitumen, mineral tar, or asphalt. It differs but little from the semi-solid varieties of asphalt, although it is described as frothing more on boiling. Some specimens are said to contain a small portion of oxygen, and also nitrogen, but these are probably the traces of impurities, as well as the cause of the frothing. No satisfactory analysis has been made. See ASPHALT; BITUMEN; DEAD SEA; *ante*.

MALUS, ETIENNE LOUIS, 1775-1812, b. Paris; educated at the school of military engineers, but falling under the suspicion of the revolutionary government, was dismissed. While serving as a private soldier at Dunkirk, he attracted the attention of Lepère, director of the fortifications there, who procured him an appointment to the *École Polytechnique*. Here he pursued the study of mathematics, and especially of the mathematical theory of optics. Appointed to the engineers, he entered the army of the Sambre and Meuse, and witnessed the passage of the Rhine, and the engagements at Altenkirch and Ukraz. He was attached to the Egyptian expedition, and after the capture of Jaffa, was engaged in the restoration of its fortifications, and the construction of military hospitals. He fortified Damietta, was present at the siege of Cairo, and after the surrender to the English, came back to France in 1801. He now took charge of the fortifications at Antwerp and Strasburg, at the same time carrying on his scientific researches. His *Traité d'Optique*, published in 1810, treats of the refraction and reflection of light, and contains experiments in regard to the reflection of light in transparent media. In 1808 the French institute offered a prize for the best paper on double refraction in crystals. Malus competed for this prize, and in the course of his experiments discovered the phenomenon known as the polarization of light. He advanced the theory that particles of light have poles, and that on entering a doubly-refracting crystal, some of the particles forming one of the rays may be so arranged as to be transmitted through it, while the particles which should have formed the other ray may be so arranged as to prevent the transmission in certain directions. The discovery of these phenomena introduced a new division of physical optics. Malus published an account of them in the *Memoirs* of the institute, which at once elected him to its membership; and the English royal society gave him the Rumford medal, though France and England were then at war. In 1810 he published his *Théorie de la Double Refraction de la Lumière dans les Substances Cristallisées*, and the next year he wrote a couple of papers on some phenomena of polarized light. He was appointed examiner in physics at the *École Polytechnique*, and was about to be appointed director of its studies when he died.

MALVERN HILL, BATTLE OF, the last of the engagements known as the "seven days' battles," June 26-July 1, 1862, the others being those of Mechanicsville, Cold Harbor, Savage's station, and Frazier's farm. After the battle of Frazier's farm, McClellan posted the union army on Malvern hill, an elevated plateau about 1 m. from the James river, and 11 m. from Richmond. This hill is about a mile and a half in length and three-quarters of a mile broad, flanked by thick woods, and faced with gullies, which rendered it exceedingly difficult of approach. The ground was thus exceptionally strong by nature, and it was now defended by McClellan's army of about 90,000 men; a battery of 7 heavy siege guns was placed on the crest of the hill, and the remainder of the union artillery was admirably posted in such wise that the concentrated fire of 60 guns could be directed at any point desired. Lee's army, which had persistently followed McClellan on his retreat to the James, attacking whenever it seemed practicable, had met with a serious repulse, June 30, but on the morning of July 1, with about 60,000 men, undertook to storm Malvern hill in the face of all the obstacles presented. The confederate attack was made by Jackson and D. H. Hill, and supported by Magruder, and, as might have been anticipated, resulted in their repulse, with a loss of 900 killed and 3,500 wounded. The union loss was 375 killed and 1800 wounded. McClellan did not take advantage of this success, but retired at once to Harrison's landing. The confederates continued to hold their lines for several days, when they retired to Richmond. See CHICKAHOMINY.

MALVOISINE, or MAWMOISINE, WILLIAM DE, a Scottish ecclesiastic; was educated (and as some think, born) in France. Going to Scotland, he was made one of the *clerici regis*, and archdeacon of St. Andrews. In 1199 he was constituted chancellor of Scotland; in 1200, bishop of Glasgow; in 1202, of St. Andrews; in 1208 he dedicated the new cemetery at Dryburgh abbey; in 1211 he and Walter, bishop of Glasgow, by appointment of the pope, convened at Perth a great council of the clergy and people,

to press upon the nation the pope's will and command that an expedition be undertaken to Palestine. In 1214 he attended the coronation of king Alexander II., and is said to have placed the crown on his head. The following year he went with the bishops of Glasgow and Moray, and Henri, abbot of Kilso, to the fourth Lateran council, remaining abroad until 1218. He brought from the continent various orders of monks and mendicants before unknown in Scotland, and established convents of black friars at several places. He wrote lives of the saints Ninian and Kentigern. He was exceedingly zealous for the church. He insisted earnestly also on his own rights, for at one time he deprived the abbey of Dunfermline of the presentation to two churches, because the monks had failed to provide him wine for supper. Fordun says the monks had provided wine, but that the bishop's attendants had drunk it all up. He continued bishop of St. Andrews till his death.

MAME, ALFRED HENRY ARMAND, b. Tours, France, 1811. Inheriting the publishing house of his father, of which he has become sole conductor; he has increased it to a vast establishment, employing 700 workmen in its factories, and nearly as many more outside, printing and binding upwards of 20,000 volumes per day. Religious books formerly composed a large part of its work, but works on law have been added. The *Bibliothèque de la Jeunesse Chrétienne*, an aggregate of little volumes for distribution in Sunday and secular schools, and primary school-books make the greater part of the publication of the house of Mame. Of late years, however, they have published elegantly illustrated works in other fields; as, *Les Jardins*; *La Sainte Bible*, illustrated by Doré; and *Les Chefs d'Ouvre de la Langue Française*. In 1773 he received one of the prizes of 10,000 francs accorded to the manufacturing establishments where there was found the greatest social harmony and well-being among the workmen, which was given for his establishment at Tours.

MAME'ELON (Fr. from Lat. *mamma*, breast), a mound in the shape of a woman's breast. These artificial mounds of fortifications were common in the siege of Sebastopol.

MAMELU'CO, the name given in parts of South America to a child of a negro father and an Indian mother.

MAMMON, a Chaldee word denoting riches, and so used often in the Chaldee Targums and in the Syriac version. This meaning is given by Tertullian, Jerome, and Augustine; and so Christ employs it in Luke xvi. 9, 11, but Christ uses it also as a personification of the god of riches, as, "Ye cannot serve God and mammon." The derivation of the word is doubtful.

MAMMOTH CAVE (*ante*), though the largest, is but one of a very large series of caves, lying beneath extensive districts of both Tennessee and Kentucky. It was discovered in 1809, and has always been private property. The principal stream, Echo river, is nearly three-quarters of a mile in length and has underground communication with Green river; the Styx is about 450 ft. long and is remarkable for a natural bridge of great beauty. Passages and avenues connect chambers or halls, placed at different levels; thus showing the slow progress of the stream in its course through the earth. Accurate measurement of the passages has never been permitted. The extreme length is said to be from 8 to 10 m., while the total length of passages cannot be less than 150 miles. Several of the largest chambers, called domes, extend through the entire height of the levels. Of these the most notable are the Stella, Mammoth, and Gorin's domes, each about 250 ft. high, and Lucy's dome, over 300 ft. high and 60 ft. in diameter. Cleveland avenue extends for more than 2 m. and presents a most wonderful variety of crystals and incrustations, "some massive and splendid; others delicate as the lily."

All of the halls offer to view numbers of stalagmites and stalactites, which in their varied and fantastic shapes—sometimes exhibiting weird or grotesque resemblance to natural or architectural objects—form, in conjunction with the streams and fountains, the picturesque scenery of the cavern. Startling effects are produced by the use of lights and fireworks, the Star chamber showing on its ceiling myriads of the glistening points from which it takes its name.

Geologists assign a million years as the approximate term for the production of this series of caves. There is at present no growth, but, on the contrary, a slow but continual decrease in size by the natural causes of decay and accretion. The process of formation seems to have been as follows: In their course through the soil the streams absorb a large amount of carbonic acid gas; this possesses the chemical power of taking up considerable quantities of carbonate of lime, thus by varied action forming large cavities, and depositing the carbonate, in part, on ceiling or floor or in the stalagmite and stalactite forms, and, in part, carrying it off into the river. In this way the caverns are in succession produced and closed up.

The variations in both the insect and fish life of the Mammoth cave from the ordinary type are scientifically of the highest interest as bearing upon and, it is claimed, favoring the doctrines of evolution and natural selection. That variation has taken place to accommodate animal life to exigencies of environment cannot be doubted, when we examine the blind and the totally eyeless species of fish and crawfish here found. It is not improbable that, if more thoroughly explored, fossil testimony of great value might be discovered.

MAN (*ante*). See BIOLOGY; SPECIES.

MAN'AKIN, one of the names of a bird belonging to the order *insessores*, called also chatterer (q. v.).

MANASSAS, BATTLES OF. See BULL RUN.

MANASSEH BEN-JOSEPH BEN-ISRAEL, 1604-57, b. Lisbon; educated at Amsterdam, where his father had removed to escape persecution. At the age of 18 he took the place of his former instructor, rabbi Isaac Uzziel, in the Amsterdam synagogue. In 1632 he set up a Hebrew printing-press at Amsterdam, and in 1632 published the first volume of his *Conciliador*, the Latin edition of which bears the title of *Conciliator, sive de Convenientia locorum S. Scriptura*, etc. It is a learned harmony of the Pentateuch. Its author was at once recognized as the first Hebrew scholar in England, and among his correspondents were Vossius, H. Grotius, and Huet. In 1639, deprived of his property by the Spanish inquisition, he removed to Basle, and began business as a merchant. He came to England in the time of the protectorate with the view of securing from Cromwell the concession of additional rights to the Jews. He met with a favorable reception, and succeeded in accomplishing some of the objects of his mission, after which he returned to Amsterdam. He was a friend of Grotius, and other famous scholars, and his own literary activity was great. Besides the *Conciliador*, he published editions of the Talmud, and the Hebrew Bible; *A Defense of the Jews in England*, which appeared at London, during his English visit, a work on the resurrection of the dead; and various other treatises. There is an English translation of the *Conciliador*, by E. H. Lindo; and an English life of Manasseh, by Dr. Thomas Pococke.

MANATEE', a co. of s. w. Florida on the gulf of Mexico, having the Caloosahatchee river on the s., and lake Okeechobee on the s. e.; watered by the Manatee river and small streams; 4,070 sq. m.; pop. '80, 3,655. The surface is generally level, and the soil not very productive; it grows, however, Indian corn, sweet potatoes, rice, and a little sugar and cotton. Co. seat, Manatee.

MANAYUNK', a part of the city of Philadelphia, on the e. bank of the Schuylkill river, and on the Reading railroad; connected with the heart of the city by steam and horse cars, boats on the Schuylkill, and a well-made highway. The canal of the Schuylkill navigation company, extending 2 m. along the river, affords extensive water-power, which is employed in the manufacture of cotton and woolen goods and paper. There are 30 manufacturing establishments, with a capital of \$6,000,000, employing nearly 5,000 persons, and producing goods annually valued at \$10,000,000. The place has 8 churches, 2 weekly newspapers, 1 bank, 5 insurance companies, excellent schools, water and gas works, and a good market-house.

MANCHESTER, a t. in Hartford co., Conn.; 8 m. e. of Hartford, on the Hartford, Providence and Fishkill railroad; pop. 4,223. The place is extensively engaged in manufacturing, there being over a dozen paper mills, and others of woolen, cotton, needles, and so on. The largest of all is the silk factory of Cheney Bros., which covers 7 or 8 acres and employs more than 1000 operatives. There is a newspaper, library, town-hall, and many schools, churches, and stores.

MANCHESTER, a t. in Essex co., Mass., on the n. shore of Massachusetts bay, and on the Gloucester branch of the Eastern railroad, 8 m. n. e. of Salem. Pop., 1665. It has 3 churches, a public library, and manufactures of leather and furniture. The purity of the air and the fine ocean views make it an attractive summer resort for many residents of Boston, New York, and other cities.

MANCHESTER (*ante*), a city in Hillsborough co., N. H., is reached by 4 railroads, the Concord, the Concord and Portsmouth, Manchester and Lawrence, and Manchester and North Weare. Its original name was Derryfield, under which it was incorporated in 1751. Its present name was taken in 1810, and the city charter dates from 1846. Cotton and woolen manufactories produce an enormous quantity of goods annually; water-power being furnished by the Merrimac river through canals leading from the Amoskeag falls to the mills, 4 of which have more than 300,000 spindles. There are also extensive locomotive, leather, boot and shoe, and tool shops. Among the principal public buildings are the court-house, state reform school, library, Roman Catholic convent, and others. There are 7 newspapers, of which 2 are dailies; 9 banks, and a very large number of schools and churches. The town was originally settled in 1722 by Scotch-Irish Presbyterians. The amount of capital invested in manufactures cannot be less than \$10,000,000, and in this respect it is surpassed by only 3 or 4 cities in the United States. There is a great variety of manufactures besides those of cotton and woolen goods, such as boots and shoes, stockings, paper, cutlery, locomotives, steam-fire-engines. The 4 great corporations are the Amoskeag manufacturing co., the Manchester mills, the Stark mills, and the Langdon mills. The city has an excellent supply of water from Massabesick lake, near by.

MANCHESTER, the capital of Bennington co., Vt., on the Harlem Extension railroad, 30 m. s. of Rutland, and 60 m. n. of Troy, N. Y.; pop. 1897. Its fine mountain scenery, the purity of its atmosphere, and its picturesque walks and drives, make it attractive as a resort during the summer. It has 2 churches, a classical school for both sexes, a newspaper, and is the seat of the Burr and Barton seminary.

MANCHESTER, a village of Chesterfield co., Va., on the s. bank of the James river, opposite Richmond, and the seat of important manufactures; pop. 2,599.

MANCHOORIA. See **MANTCHURIA**, *ante*.

MANCINI, a Roman family, beginning historically in the 14th c. with the name of Pietro Omni-Santi, surnamed Mancini dei Luci. Cardinal Francesco Maria Mancini, who married a sister of cardinal Mazarin in 1634, is the next distinguished member. His daughters, noted for their beauty and their intrigues, are spoken of by Michélet as "a battalion of Mazarin's nieces."—**LAURE**, 1635–57, was a favorite of Louis XIV. when prince.—**OLYMPE**, 1639–1708, of the "black soul and black face," a mischievous beauty, was his mistress, who was married to an Italian and bore 8 children, was charged with poisoning her husband, and became a wanderer out of France, and when in Spain was suspected of poisoning Louise, the wife of king Charles II. Prince Eugene of Savoy was one of her five sons.—**MARIE**, 1640–1715, another mistress of Louis XIV., who came near marrying her. She married prince Collonna in 1661, bore several children, quarreled with and left her husband, returned to Paris in want, was placed in a convent by Louis XIV., and subsequently led an adventurous life.—**HORTENSE**, 1646–99, a beauty, courted by Charles II. of England, by marshal Turenne, and Charles de Lorraine, was married to Armand de la Porte, marquis de la Meilleraye, who soon after assumed the title of duke of Mazarin on the death of the cardinal. She, too, was supposed to have been too free not only with Louis XIV., but with her former lovers; left her husband, entered the court of Charles Emanuel of Savoy; and on his death was expelled by his widow. She then visited Germany, and then Charles II. of England, who was soon again one of her suitors, fixed an annuity upon her, and allowed her a home in the palace of St. James.—**MARIE ANNE**, 1649–1714, went to Paris in 1655, was married to Maurice Godefroi de la Tour, duc de Bouillon, in 1662; soon left and afterwards rejoined her husband; became the patroness of La Fontaine, and made her home a literary center, where Molière, Corneille, and other celebrities met. She, too, became suspected of the use of poisons, and fled Paris in 1680, lived 8 years in England, 2 in Venice and Rome, and returned to Paris in 1690, where her society was courted to the last. She seems to have been the least disreputable, or vile, of a beautiful family which, if living in the present day, would be denizens of other places than the palaces of the rulers of great nations.

MANCINI, **PASQUALE STANISLAUS**, b. Naples about 1815. He became a professor of law quite young at the university of Naples; deputy to the Neapolitan parliament in 1848, and editor of a famous protest of the liberal party against the acts of Ferdinand II. Self-exiled to escape the hospitable dungeons of Ferdinand he fled to Turin, where he achieved a brilliant success at the bar, and was made law professor of the university of that city. He made a specialty of teaching the principle of nationalities as distinguished from dynasties. He was member of the Piedmontese chamber of deputies when Garibaldi's movements cut the knot of Neapolitan slavery; and he became minister of justice and ecclesiastical affairs in the provisional government. He promulgated an order to break up the mendicant and "contemplative" orders; but public opinion was not ripe for it, and it was not executed. He was deputy to the first Italian parliament in 1861, and became one of the leaders of the center, *consorteria*; one of the most brilliant orators of the parliament, and an active promoter of Italian unity and progress.

MANCO CAPAC' I., by Peruvian tradition, was the first of the Incas, and founded the royal race several centuries before the invasion of the Spaniards. He is represented in legends as a child of the sun, who with his wife, Mama Oello, instructed the natives of Peru in science, art, and architecture, and predicted the overthrow of the twelfth of his dynasty by a white race from distant lands.

MANCO CAPAC' II., the last Peruvian Inca who made any serious opposition to the Spanish power. He was the son of Huayna Capac by the daughter of a conquered chieftain of Quito. His half-brothers Huascar and Atahualpa engaged in civil war upon their father's death, and the latter defeated and executed his rival. Atahualpa, trusting the faith of the Spaniards, was himself falsely accused and executed in 1533. After the death of Toparca, whose claims to the throne were supported by Pizarro, Manco claimed the title, and for a time allowed himself to be used as Pizarro's tool. But his character was naturally bold and independent; he soon escaped from his degradation, and in 1536 laid siege to Cuzco, a great part of which he burned. This was the last triumph of the Peruvian race. Manco took refuge in the Cordilleras, and for years carried on an irregular warfare to the great annoyance of his enemies. Pizarro's cruelty in scourging publicly to death a favorite wife of the Inca in retaliation for the slaying of a Spanish messenger, rendered all thought of reconciliation impossible. In 1544 Manco was killed by a party of Almagros soldiers who had taken refuge in his camp.

MANDALAY (*ante*), situated on a bend of the Irrawaddy river, about 17 m. above the ancient capital of Amarapoora, became the capital of Burmah by command of the king in 1853. It is 400 m. n. of Rangoon, the great sea-port of all Burmah, and is reached by way of the river on steamboats. The climate is pestilential, and but for the swine, which act as scavengers, the filth to be found in all directions would render the city uninhabitable. Pigs crowd the highways, feeding from the refuse that is scattered

everywhere, and these animals are under protection, and have even been the subject of provision on the part of benevolent individuals, who remembered them in their wills for the good of the city. The place is further infested with pariah dogs, vicious and noisy. The dwellings in Mandalay are constructed of bamboo, and of a dark red wood found throughout Burmah, the latter being usually ornamented with beautiful carvings. Such houses have three or four roofs, which give them an extremely picturesque appearance. A monastery near the city contains in its court-yard a number of statues representing the Buddhist Gautama, the founder of that religion, in various attitudes. A sluggish stream, the Schway-ta-Choung, with several carved wooden bridges, is near by, on the left bank of which stands the building of the former British residency, now abandoned. The citadel is built in a perfect square, of which each front is a mile in length. It is protected by a high crenelated wall, adorned at intervals by pretty seven-roofed kiosks; and by a broad moat filled with clear water, on whose surface float masses of blooming lotus-flowers, with here and there a carved war-boat, whose prow presents the figure of a dragon. A heavy gate and drawbridge at each side of the wall give access to the citadel, and are guarded by Burmese soldiers. Within are the hall of justice, the royal palace, and the abode of the sacred white elephant. The present king of Burmah, Theebaw, resides in the palace. He is the son of the late king Mindoon Men, and the youngest of three brothers. Great efforts were made towards the education of this prince, and he was trained in a Burmese convent. But on the death of his father, he seized the government, causing all the friends and near relatives of the other princes to be murdered, while they only escaped by seeking the protection of the British residency in disguise. They were afterwards smuggled to the British frontier, and were shipped to Calcutta, whence they have twice returned to Burmah, and raised rebellions, which, however, proved ineffectual. Since his accession to the throne, king Theebaw has become notorious for his bloodthirsty cruelties, until it has become a common incident to see Burmese publicly crucified in the streets of Mandalay under his orders. His reign has been one of the most vicious and despicable known to recent oriental history.

MANDAMUS (*ante*) is issued in this country by the highest court which has jurisdiction at law. The writ enjoins upon a court of inferior jurisdiction, a person or a corporation, the performance of a particular act as their duty. This is the usual remedy to enforce the performance by a corporation of acts within the legitimate sphere of its duties, though it will not be granted to enforce ordinary rights of contract, for which there is already a sufficient remedy in the law courts. It lies to compel the production by a corporation of its records and papers, when their evidence is material to a suit brought by a corporator; and to reinstall an ejected officer of a corporation in his office after his title thereto has been maintained at *quo warranto*. It is not granted as of right, but is issuable at the discretion of the court, and ought to be used, according to lord Mansfield, "upon all occasions where the law has established no specific remedy, and where in justice and good government there ought to be one;" in other words, a court will not take jurisdiction by this writ unless there be no definite remedy at law.

MANDANS, the name of a tribe of Indians who have always inhabited the lands along the upper Missouri, having been forced by the exigencies of Indian warfare from a point about 1500 m. from the mouth of that river to their present habitat, near fort Berthold, Dakotah territory. They are of the Dakotah family, and have always been at enmity with the Sioux, who still pursue them with persistent ferocity. In 1870 a reservation of about 9,000,000 acres, partly in Dakotah and partly in Montana, was set apart by the government for the Rickarees, Minnetarees, and Dakotahs, and on this the remnant of the tribe continues to reside, numbering in 1875 about 500 souls. The Mandans are generally peaceful, live by agriculture and hunting, and are notable for the interesting and peculiar character of their rites and ceremonies, the burial of their dead, and their mode of initiating warriors. No missionary work of any importance has been performed among them, and but slight attempts have been made for their education.

MANDARA, or **WANDALA**, a kingdom in w. central Africa, s. of Bornou (or Bornoo), to which it is now tributary, situated in a fertile valley abounding in fig and other fruit and flowering trees, well watered by many springs, and protected from assault by a range of the mountains of the Moon. It is inhabited by a race of negroes much further advanced in civilization than any of the neighboring tribes, who engage quite extensively in iron and cloth manufacture and possess bodies of drilled and uniformed cavalry. The country was formerly included in Karowa, s.w. of Mandara, but became independent mainly through the adoption of the Mohammedan faith. In 1863 a war was waged with Bornou and the country was entirely subjugated. Mora, its former capital, being razed to the ground. Doloo, pop. 30,000, is now its chief city.

MANDARIN', a village of Duval co., Fla., on the e. bank of the St. John's river, 15 m. above Jacksonville. It is a place of winter resort, and celebrated for its fine orange crops.

MANDARIN' DUCK, a species of domestic duck brought from China and Japan. It has a brilliant plumage, a beautiful green crest, and a tuft of feathers on the back in the shape of a fan. These ducks have the reputation of conjugal fidelity and of never mating but once.

MANEE'SA. See MANISSA, *ante*.

MA'NES. See MANI; MANICHEANS; *ante*.

MANGEL WURZEL. See BEET; MANGOLD WURZEL, *ante*.

MANGLE, a machine for smoothing linen and cotton goods, such as table-cloths, sheets, etc., after washing. It has been much improved since the first rude invention, but does not supersede the sad-iron for the finer kinds of work.

MANGLES, JAMES, 1785-1861; b. England; entered the British navy in 1800, and was made a commander in 1815. The next year he went down the Nile, and made excavations at the temples in Ipsamboul. He returned to England in 1820, by way of Syria. A collection of letters, written by him and his traveling companion, commander Charles Leonard Irby, was printed for private circulation in 1823, and given to the public in 1844, as *Travels in Egypt and Nubia, Syria, and the Holy Land*.

MANGOUSTE, or MONGOUS. See ICHNEUMON, *ante*.

MANGUM, WILLIE PERSON, 1792-1861; b. Orange co., N. C.; graduated at the North Carolina university in 1815; was a successful lawyer and whig politician; elected a judge of the superior court in 1819 and 1826; was a member of congress 1823-26, and U. S. senator 1831-37 and 1841-53. He was president of the senate during the administration of John Tyler. In 1837 he received 11 electoral votes for president of the United States.

MANHATTAN ISLAND. See NEW YORK.

MANHEIM. See MANNHEIM, *ante*.

MANIA. See INSANITY.

MANICA, a small state of s.e. Africa, in the territory of Monomotapa, but tributary to the Portuguese. It is a mountainous region, and produces gold and copper, which, with ivory, form the chief articles of export, and are exchanged with the Portuguese for silk, linen, and iron. Many parts are fertile, affording pasturage for large herds of cattle.

MANIGAULT, GABRIEL, 1704-81; b. S. C., of Huguenot parentage; became a merchant, acquired great wealth, and in the beginning of the war of independence loaned to the state of South Carolina the sum of \$220,000. In 1779, when Prevost attacked Charleston, Manigault, at 75 years of age, with a grandson but 15 years old at his side, was among the volunteers who defended the city.

MANIL'A HEMP. See ABACA, *ante*.

MANILIUS, MARCUS, lived, according to Bentley, who has edited his works, at about the time of Augustus; but both his name and identity are in great doubt, as well as his birthplace, which Bentley claims to have been in Asia; others in Rome. He is known only as the author of a poem called *Astronomica*, of which five books are extant treating of the fixed stars. Probably others on the planetary system have been lost or never completed. As an astronomer Manilius seems to have been somewhat in advance of his age, but as poetry his book has small value.

MANIS'TEE, a co. of Michigan, having lake Michigan on the w., drained by the Manistee river; 550 sq. m.; pop. '80, 12,533. It is a level region, heavily timbered with pine, and with a fertile soil. The productions are wheat, hay, Indian corn, oats, potatoes, and butter. Co. seat, Manistee.

MANIS'TEE, a city in w. Michigan, incorporated 1869; situated at the mouth of the Manistee river on the shore of lake Michigan; pop. '70, 4,894. It is 45 m. s.w. of Traverse City, 72 m. n. of Muskegon, and 135 m. n.w. of Lansing. It has a prosperous community engaged in farming, and also in the manufacture of lumber, which is exported at the rate of 200,000,000 ft. annually. On the e. is lake Manistee, through which the river finds its outlet, the length of the river from this lake to lake Michigan being 1½ m., and navigable by vessels of light draught. It has about 20 steam saw-mills on lake Manistee manufacturing great quantities of shingles, laths, pickets, etc. It has machine-shops, grist-mills, and a tannery. It contains 6 churches, excellent public schools (one building for educational purposes costing \$18,000), a court house, and a town-hall. Seat of justice, Manistee.

MANITOBA (*ante*). A considerable portion of this province is prairie-land, diversified by patches of elm, ash, oak, poplar, and maple. The soil is a rich black mold, producing from 20 to 25 bushels of wheat to the acre, the grain ripening in 110 days. It produces also oats, barley, corn, hops, flax, hemp, potatoes, and all kinds of garden vegetables. The savannas of the Red river afford excellent pasturage. The winter climate, though severe, is declared to be milder than that of the Red river valley, farther south. The short summers are very warm. The climate, on the whole, is healthful. The Red river is valuable for navigation, except when it overflows its banks and inundates the surrounding country. The Canadian Pacific railway has its course through the province. A large proportion of the inhabitants are Roman Catholics, that religion having been established at an early day by missionaries to the Indians. A Roman Catholic archbishop resides at St. Boniface, and the see-house of the Anglican lord-bishop of Rupert's Land is at fort Garry. The board of education is composed of equal numbers of Roman Catholics and Protestants. There is a considerable Scotch Presbyterian element in the population. St. John's college (Anglican), and St. Boniface college (Roman

Catholic), were founded in 1872. The executive government consists of a lieutenant-governor and a council of five. The legislature is composed of a legislative council of seven members, appointed for life, and of a legislative assembly of 24 elective members. The public business is carried on in both the English and French languages. The common law of England is in force in the province.

MANITOBA, LAKE a body of water in the n.w. territories of Canada, intersected by the 51st parallel and 99th meridian. It is about 60 m. s.w. of lake Winnipeg, which receives its waters through the Saskatchewan or Dauphin river, which, near the middle of its course, expands into St. Martin's lake. Manitoba lake is about 120 m. long, and about 25 m. wide; area, about 1900 sq. miles. It is 40 ft. higher than lake Winnipeg, and navigable for vessels drawing 10 ft. of water. It abounds in fish. At its northern end it receives the waters of several smaller lakes, and at the s. those of the White Mud river. The name, in the Indian dialect, signifies "supernatural strait," the Indians attributing what they regarded as the peculiar agitation of the water in some places to the presence of a spirit.

MAN'ITOU, a name used among most Indian tribes to denote any object of supernatural fear or worship. It somewhat resembles in this the Greek *dæmon*, which meant either a good or evil spirit. The great spirit, or *gitché Manitou*, does not correspond with our idea of a personal God. Any article, as a charm, connected with Indian superstitions is also designated by the same term, just as Africans use the word *fetich* for idols, amulets, or rites.

MAN'ITOU, a co. in Michigan, comprising islands in lake Michigan, 100 sq. m.; pop. '80, 1334. The islands included, and which lie off the coast of the lower peninsula, are the Big Beaver, Great and Little Manitou, Little Beaver, Garden, Hog, South and North Fox. These islands have a rugged surface, and are not very fertile. Co. seat, St. James.

MANITOWOC', a co. in e. Wisconsin, on lake Michigan, drained by the Sheboygan, Manitowoc, and East and West Twin rivers; 612 sq. m.; pop. '80, 37,506. The soil is productive, yielding largely of wheat, rye, oats, barley, potatoes, hay, peas, and beans. Other productions are wool, butter, and pine lumber, the latter being the most important article of export. There are a large number of flour, saw, and woolen mills, besides tanneries, breweries, and currying establishments. Co. seat, Manitowoc.

MANITOWOC', chief city in Manitowoc co., in e. Wisconsin, at mouth of the river of the same name and on the Milwaukee, Lake Shore and Western railroad. Its pop. is 5,168, largely German; has a bank, 4 newspapers, tan-yards, factories, and some lake commerce.

MANKA'TO, chief city in Blue Earth co., Minnesota; is 86 m. from St. Paul, on the St. Paul and Sioux City railroad; pop. '70, 3,482. It is also the terminus of the Central road, and is on the Missouri river; has 3 banks, 4 newspapers, a library, state normal school, 8 or 10 manufactories, and a good general trade.

MANLEY, JOHN, 1734-93; b. at Torbay, England; bred a sailor in the maritime service. He soon became a resident of Marblehead, Mass. At the opening of the revolution he was placed by Washington in command of the schooner *Lee*, in which he did good service, seizing several vessels, one of which was of great value. In 1776 he received a regular commission from congress. His first capture in the *Hancock*, his new command, was the man-of-war *Fox*. Owing to cowardly conduct by his consort, capt. McNeil of the *Hector*, capt. Manley was taken by the British man-of-war *Rainbow*, on July 8, 1777. He was tried for his conduct in this affair and honorably acquitted. The last naval combat of the war was between the *Hague*, capt. Manley, and four British men-of-war, the former having been driven on a sand-bank at Guadeloupe. Here for three days Manley defended himself against the tremendous odds and finally effected his escape. After the war his home was at Boston, where he died.

MANLIUS. The Roman family whose members bore this name had many famous representatives, of whom may be noted: 1. **MARCUS MANLIUS CAPITOLINUS**, who was consul in 392 B.C., and two years later gained his surname by rescuing the capitol from the attacks of the Gauls. From this time forward he courted the favor of the lower classes, and in 381 was arraigned before the centuries and sentenced to be thrown from the Tarpeian rock. The name of Marcus was never after borne by any of the Manlian gens, who considered him a traitor to his family and class. 2. **LUCIUS MANLIUS IMPERIUS**, dictator B.C. 361. 3. **TITUS MANLIUS TORQUATUS**, son of Lucius, military tribune B.C. 359, twice dictator and three times consul. His surname was derived from his having despoiled a gigantic Gaul of a golden chain (*torques*) after having slain him in single combat. In his last consulship he waged a successful war against the Latins and caused to be put to death his own son, who had disobeyed his orders by engaging in single combat with the enemy. 4. **TITUS MANLIUS TORQUATUS** was consul in 235 B.C., and in 224. In that year he defeated the Gauls and crossed the Po, and soon afterwards was victorious over the Carthaginians. He was again elected consul in 210 B.C., but declined the honor. 5. **CNEIUS MANLIUS VULSO**, consul B.C. 189, after having been prætor in 195 and curule ædile in 197 B.C. He was victorious over the Gauls of Galicia and in Asia, but, on account of a serious defeat when returning through Thrace, with difficulty obtained the honor of a triumph.

MANLY, BASIL, D.D., 1793-1868; b. near Pittsborough, Chatham co., N. C.; graduated at the South Carolina college in 1821; preached in the Edgfield district for three years; pastor of the Baptist church in Charleston 1826-37; president of the university of Alabama 1837-55. Resigning on account of failing health, he took charge of another church in Charleston, which he subsequently left and became a traveling missionary in Alabama. He took an active part in the organization of the southern Baptist convention in 1845, and in the establishment of the theological seminary at Greenville, S. C., in 1858. He published a *Treatise on Moral Science*, which has been a text-book in southern colleges.

MANN, A. DUDLEY, b. Va., 1805; was a commissioner of the United States to negotiate commercial treaties with Hanover, Oldenburg, and Mecklenburg in 1845, and with all the minor German states in 1847; special commissioner to the insurgent government of Hungary in 1849; minister to Switzerland in 1850; private secretary to president Pierce in 1853, but resigned in a few months to devote himself to the development of the material resources of the southern states. In 1861 he was sent on a special mission to induce the European governments to recognize the confederacy, and was afterwards associated for the same purpose with Messrs. Mason and Slidell.

MANNERS, JOHN. See GRANBY, *ante*.

MANNING, HENRY EDWARD, Cardinal, b. July 15, 1808, at Totteridge in Hertfordshire, England; was educated at Harrow school and Balliol college, Oxford, where he took orders in the church of England. In 1834 he was presented to the living of Lavington and Grafton in Sussex co., and in 1840 was appointed archdeacon at Chichester, the cathedral town. Up to this time he was a consistent high-church Anglican, though, like many Oxford divines, inclined to Puseyism; but in 1851 the decision of the courts in the noted Graham case, which seemed to Manning and others to claim for the crown authority over a purely doctrinal question on the subject of baptism, left him, he thought, no alternative but to abandon his preferment and become a member of the Roman Catholic church. It was thought by many that this would prove the beginning of a serious movement toward Rome on the part of a large section of the Anglican church. For three years he studied the dogmas and rites of his new faith at Rome, and in 1857 was ordained by cardinal Wiseman and became priest of the parish of St. Helen and St. Marys. In 1865 he was nominated archbishop of Westminster, and other ecclesiastical honors were conferred upon him. He has always been particularly energetic in the matter of public education; in 1874 was opened the Kensington university (Roman Catholic), in the founding of which he had been for several years concerned. Perhaps more than any other dignitary of his church, he has been active in providing primary education for the masses. The cardinal's hat was conferred upon archbishop Manning by Pius IX in Mar., 1875. In the Vatican council of 1869-70 he took a prominent part, sustaining the extreme advocates of infallibility; and his controversy on the subject with bishop Dupanloup was one of the prominent features of that time. *Petri Privilegium* (1871) is an exposition of the doctrine and an account of the proceedings. On the same subject he has also published answers (1875) to Mr. Gladstone's expostulation, giving his views of the bearing of the Vatican decrees on civil allegiance. Besides these works he has published sermons and numerous pamphlets on ecclesiastical subjects and on the condition of Ireland, in the government of which he has long advocated reform. Among these are: *Unity of the Church* (1842), *Temporal Mission of the Holy Ghost* (1865), *Temporal Power of the Pope* (1866), *England and Christendom* (1867). The cardinal is a man of great keenness of intellect, firmness of purpose, and fervor of spirit.

MANNING, JACOB MERRILL, D.D., b. Greenwood, N. Y., 1824; graduated at Amherst college in 1850, and at Andover theological seminary in 1853. In 1854 he was settled as pastor of a Congregational church in Medford, Mass., but resigned in 1857 to become associate pastor of the Old South church in Boston, where he still (1881) remains, being now the sole pastor. He has been a contributor to the *Bibliotheca Sacra*; was the orator of Boston, July 4, 1865; and has published *Truths and the Truth* and *Helps to a Life of Prayer*. His discourses and writings show a strong and clear intellect, with a finished literary taste.

MANNING, JAMES, D.D. 1738-91; b. Elizabethtown, N. J.; graduated at Princeton college in 1762; became pastor of a Baptist church in Morristown, N. J., in 1763, and soon afterwards in Warren, R. I. In 1763 he proposed to some prominent Baptist gentlemen of Newport the formation of a "seminary of polite literature, subject to the government of the Baptists," and prepared a plan for the institution. The necessary money was raised, and a charter obtained in 1764. In 1765 Mr. Manning, but 27 years of age, was appointed "president and professor of languages and other branches of learning, with full power to act in these capacities, at Warren or elsewhere." The college, first called Rhode Island college, was opened at Warren in 1766, and in 1770 removed to Providence. In connection with the presidency, he was pastor of the First Baptist church. During the revolution, when the college was occupied as a military barrack and afterwards as a hospital, Manning continued his duties as pastor and used his influence in behalf of his country. In 1783 he resumed his duties as president, and in 1786 was elected to congress, still retaining his connection with the college. While in congress he took an active part

in the adoption of the national constitution. He resigned the presidency in 1790. Dr. Manning may be regarded as the founder of the college, though the plan was suggested by an association of ministers in Philadelphia. He was distinguished as a pulpit orator, possessing, according to his biographer, "a most attractive and impressive exterior, a voice of extraordinary compass and harmony, and manners expressing remarkable dignity and grace." The name of the college was changed to Brown university, in 1804 in honor of Nicholas Brown its liberal benefactor.

MAN OF SIN, an expression used by the apostle Paul in 2. Thess. ii. 3, and which is variously interpreted. The Roman Catholics assert that the *Man of Sin* is Antichrist. The Puritans applied the term to the pope of Rome; the fifth-monarchy men to Cromwell, and some modern theologians consider it as identical with that "wicked one" referred to in v. 8 by the apostle, who is to appear immediately before the second advent of Christ, whom he will destroy with the "spirit of his mouth" and the "brightness of his coming."

MANOMETER (*ante*). The various forms of manometer may be classified under three heads: 1, the open-air manometer, on the principle of the barometer; 2, the confined-air manometer, on the principle of Mariotte's instrument (q.v.); and 3, the metallic-spring manometer. A simple open-air manometer consists of a glass tube, open at both ends, placed upright in a strong bottle of glass or iron, the bottom of which contains mercury. The tube passes through a tight packing box in the neck. In the upper part of the bottle there is an orifice which admits compressed air, acted upon by steam or vapor, whose tension it is desired to measure. But this form cannot be used for high pressures. The multiple-branch manometer is a modification of the simple open instrument, and is constructed by bending a long tube, open at both ends, in a series of V-shaped flexures of from 20 to 40 in. in height, the number of flexures depending upon the pressure the instrument is liable to be subjected to. Columns of mercury, of equal height, being placed in the lower halves of the V-shaped legs, will indicate the pressure excited at one end of the tube, by the sum of the excess of height of the mercurial columns in alternate legs, or by multiplying the excess of height in one leg by the number of legs containing such excess. The system is fastened to a board or metallic plate, which at one side, near the last branch, is furnished with a graduated scale. The compressed-air manometer is simply a strong V-shaped tube closed at one end, while at the other is attached the pipe communicating with the gas or vapor whose tension it is desired to measure. A portion of the flexure of the V contains mercury, and the space between it and the closed end is filled with common air. Now, according to Boyle's or Mariotte's law, a pressure exerted on the column of mercury sufficient to force the air into half the space it occupies at the normal atmospheric pressure, must become doubled, or 15 lbs. to the square inch must be added. Again, to compress the air into half the remaining space, 30 lbs., or double the pressure required for the reduction to the first half, must be added, making in all a pressure of four atmospheres for the reduction to one-fourth the original volume. It is evident, therefore, that a graduated scale, to exhibit the degrees of pressure, must have its spaces decrease from below upwards. The graduation is accomplished by means of an open-air multiple manometer. The metallic-spring manometer consists of an index traversing a graduated arc, and having applied to a spring connected with it—which may be in the form of a spiral—a piston actuated by the force of the gas or vapor in the boiler or steam-chamber.

MANSAROWAR, or MANSABHAR, LAKE, is situated on the n. side of the Himalaya mountains, which divide Hindustan from Thibet and Tartary, and is the source of the river Sutlej. It is 11 m. in breadth from n. to s., and 15 m. in length, and is supposed to have been formed in the crater of a volcano. It derives importance from the fact of its being an object of veneration on the part of both the Hindus and the Tartars. The former esteem it as the most sacred of all their various places of pilgrimage, and incur all kinds of hardships in the course of their endeavor to visit it from long distances. The Tartars regard it no less highly, and convey a portion of the ashes of their friends to its shores to be thrown into it. It is situated on an elevated plain covered with long grass, to the n. of which is a conical hill dedicated to Mahadeva.

MANSART', or MANSARD, FRANÇOIS, 1598-1662; b. France, of Italian origin. A thorough education, lively imagination, and horror of tinsel in architecture, led him, says his French biographer, from the over-decorated style of his time, to adopt a severity and heaviness of style that was even less pleasing. He was the artist of many creditable though not remarkable works, and is credited with the first adoption of the double-slope roof, in general use a hundred years ago, under the name of gambrel roof, and again came into fashion under the name of Mansard roofs since 1850; but with such bold and decorative modifications from the original form as hardly to be assigned to the original source.

MANSART', or MANSARD, JULES HARDOUIN, 1645-1708; b. in Paris, son of an obscure painter, who had married a sister of François Mansart. The uncle perceiving the talent of the nephew and his great industry, did all in his power to advance him, and with such success that the nephew, having assumed his uncle's name, soon became the most famous of the two; and being also a skillful courtier secured Louis XIV. for patron, and

entered upon the construction of some of his most splendid works. The château de Clagny was his first work. The next was a château for Mme. de Montespan at Versailles. The extravagance and rage for palace building which possessed the king was turned to the greatest advantage by Mansart, both as an artist and a man of business. He accumulated an immense fortune, and was covered with dignities and honors. His pride, vanity, and envy soon made him the object of opposition and detraction, but he made good his place in the favor of the king. His enemies accused him of using the influence of the king's mistresses, and of making plain faults in his plans so that, the king seeing them instantly, he could turn the fact to compliment him on the remarkable quickness of his eye and justice of his taste with an air that made the king the dupe of his cunning. He was the architect of many noted châteaux before engaging in 1660 upon the palace of Versailles, which, monstrous as was its expense, has never been considered proportionately beautiful. The grand Triamion was his work; but his most perfect design is the dome of the church of the Invalides in Paris, which, though inferior to very many domes in size, surpasses all in the exquisite proportions of its exterior lines. The *place Vendôme* and the *place des Victoires* in Paris are also by Mansart.

MANSFELD, ERNST, 1585-1626; the illegitimate son of count Peter Ernst; educated by his god-father, archduke Ernst of Austria. In return for valuable military services under Rudolph II. the stigma of his birth was removed by decree of the emperor. The title and estates of his father were, however, refused, and in revenge he joined the enemies of Austria in the thirty years' war, and became a stanch Protestant champion. Under the elector Frederick he fought desperately in Bohemia and on the Rhine. His efforts failed, but they brought him great renown; and in 1625, aided by English subsidies, he again attacked Austria. Wallenstein met and overcame his force at Dessau, April, 1626. It was on the retreat which ensued after this defeat that he died.

MANSFELD, PETER ERNST, Count, 1517-1604; b. at the castle of Mansfeld in Prussian Saxony; for many years an officer of Charles V. and Philip II. of Spain. From 1552 to 1557 he was a French prisoner. After his release he was made governor of Luxemburg, and afterwards governor-general of the Netherlands. In 1594 he was given the title of prince and returned to Luxemburg, where he resided until his death.

MANSFIELD, a t. in the s.w. part of Tolland co., Conn., on Willimantic river and New London Northern railroad. The main industry is the manufacture of sewing silk; pop. 2,401. It is the site of a soldiers' home.

MANSFIELD, a city in Richland co., Ohio; pop. 8,025. It is the junction of four railroads, of which the Atlantic and Great Western and the Pittsburg, Fort Wayne and Chicago are the most important. It has 7 hotels, 4 banks, 4 newspapers, an opera-house, public library, water-works, and many churches and schools. The manufacture of agricultural tools is a specialty, and the trade of the place is very heavy with the surrounding country, which is a productive farming region.

MANSFIELD, EDWARD D., LL.D., 1801-80; b. New Haven, Conn.; graduated at West Point in 1819, but declined to enter the army; and graduated at Princeton in 1822; studied law at the (then) Litchfield (Conn.) law school. After being admitted to the bar he removed to Cincinnati, and in 1836 became professor of constitutional law in the college there. Shortly afterwards, however, he abandoned the legal profession to engage in journalism, editing successively the Cincinnati *Chronicle*, *Atlas*, *Gazette*, and *Railroad Record*. He was commissioner of statistics for the state of Ohio from 1857 to 1857, and a member of the *société Française statistique universelle*. He was for several years a writer for the *New York Times* under the signature of "Veteran Observer." He published *Utility of Mathematics*; *Political Grammar*; *Treatise on Constitutional Law*; *Legal Rights of Women*; *Life of Gen. Scott*; *History of the Mexican War*; *American Education*; etc. Died in Cincinnati.

MANSFIELD, JARED, 1759-1830; b. New Haven; graduated at Yale college in 1777; became distinguished as a teacher and for his scientific acquisitions; was appointed in 1802 to a captaincy in the engineer corps of the army and assigned to duty at West Point as acting professor of mathematics. In 1803 he was appointed surveyor-general of the north-west territory and removed to Ohio, where he was employed in making the meridian lines on which is based the system of the public land survey. To accomplish this work he imported astronomical instruments from London, and established in his own house near Cincinnati the first observatory in the United States. In 1812 he returned to New Haven, and before the end of that year was appointed professor of natural and experimental philosophy at West Point. In 1828, after serving a term of 16 years, he resigned and returned to New Haven, where he died.

MANSFIELD, JOSEPH K. F., 1803-62; b. New Haven, Conn.; graduated at West Point in 1822, and entered the army as second lieut. of engineers. He was engaged in engineering duties on the Atlantic and Gulf coasts until 1846; in the war with Mexico he was chief engineer of gen. Zachary Taylor's army, distinguishing himself in the defense of fort Brown and in the battles of Monterey and Buena Vista, and being raised to the rank of col. by brevet. After the war he was for five years a member of the board of engineers for fortifications on the Atlantic and Pacific coasts; in 1853 he was appointed inspector-gen. of the army with the rank of col., which post he held until the

breaking out of the rebellion, when he was placed in command of the department of Washington, and at once commenced the work of fortifying the capital. In Oct., 1861, he was transferred to camp Hamilton, Va., and in the month following to Newport News. He took part in the capture of Norfolk May 10, 1862, and commanded at Suffolk from June to September of that year, when he was assigned to the command of a division in the army of the Potomac, at the head of which, in the battle of Antietam, he was mortally wounded, dying Sept. 18, 1862. Before assuming his last command he was promoted to be maj.gen. of volunteers.

MANSFIELD, MOUNT, in Cambridge, Vt., the highest elevation of the Green mountain range, being 4,348 ft. above the sea. It presents a grand appearance from all sides, and the view from the summit is one of the finest in New England. It commands a prospect of the Adirondacks on the w., the Green mountains on the s., parts of the White mountain range on the e., and the mountains surrounding Montreal on the north. In some states of the atmosphere lake Champlain also is visible. A wagon road leads to the summit on the eastern side, and there are accommodations for visitors at the top.

MANSFIELD VALLEY, a village of Alleghany co., Penn., 5 m. from Pittsburg, on Chartiers creek, and the Panhandle and Chartiers Valley railroad; pop. about 3,000. It has 5 churches, an academy, a newspaper, 3 savings banks, a smelting furnace, a glass factory, and an abundant supply of coal.

MANSLAUGHTER (*ante*), the unlawful killing of another without malice, express or implied. Manslaughter is either voluntary, i.e., where there was an intent to commit the injury; or involuntary, where there was no such intent. It differs from murder in its absence of malice, and, as it is supposed to be committed in hot blood, no person can be an accessory before the fact. Among cases of homicide which constitute a manslaughter may be mentioned killing a person by gross negligence, though in the discharge of a lawful act; killing a person who has given great provocation; and killing an officer acting without or beyond his authority, though this may also be excusable homicide. The killing of an officer acting within his legal authority is murder. The provocation above-mentioned must be immediate, not remote; and though proof of provocation sufficiently repels the presumption of malice which the law attaches to every case of homicide, it is not sufficient to lower an offense from murder to manslaughter, if express malice be made out. In most of the United States manslaughter is divided into different degrees, punished with longer or shorter terms of imprisonment.

MANSTEIN, VON, a Prussian gen. who distinguished himself in the Franco-Prussian war of 1870. At the head of the 9th corps, in the army of prince Frederick Charles, he participated in the battle of Vionville. At Gravelotte, Aug. 18, 1870, he commanded the German center, and served throughout the campaign, retiring in 1873.

MANT, RICHARD, D.D., b. Southampton, Eng., 1776; educated at Winchester college, and Trinity college, Oxford, taking his bachelor's degree in 1797; was elected fellow of Oriel college in 1798; was curate and vicar of several parishes in and near London 1804-15; received degree of D.D. from the university of Oxford; was made bishop of Killaloe and Kilfenora, Ireland, in 1820, and in 1823 transferred to the see of Down and Connor. He was the author of a valuable *Commentary on the Bible* in connection with Dr. D'Oyley. This had an immense sale in England, and was republished in New York, with additions by bishop Hobart. Besides many sermons and tracts, and several poetical pieces, he published *Biographical Notices of the Apostles; Scriptural Narratives of Christ's Life; History of the Church of Ireland from the Reformation to the Union of the Churches of England and Ireland* in 1801; *Ancient Hymns from the Roman Breviary with original Hymns*.

MANTEGN'A, ANDREA, 1431-1517; studied art under Francesco Squarcione, a famous master of Padua. Here Mantegna produced his first work in the churches of *Santa Sofia* and *San Christofano*. Rapidly acquiring skill and fame, he removed to Mantua, where his acknowledged masterpiece, "The Triumph of Cæsar," was painted. This is now at Hampton court, England. From Mantua he was called to Rome by Innocent VIII., and received from him the kindest treatment and remunerative employment, but soon returned to Mantua. Here, by his proficiency and genius both in the higher class of engraving and as a religious and historical painter, he obtained a high rank in his profession as well as large estate.

MANTEUFFEL, EDWIN HANS KARL, Baron von, b. Magdeburg, 1809; entered a military career by joining the dragoon guards, April 29, 1827; and became second lieut. the following year. He displayed an industrious character allied with considerable capacity, and interested his superior officers to that degree that he was sent for two years (1834-36) to the general military academy. In two years following he acted as regimental adjutant, being named adjutant to the 2d brigade of cavalry guards, Oct. 18, 1839. From 1840-48 he was in the immediate service of prince Albrecht, but in the latter year was transferred to that of the king, with the rank of adjutant of the wing, being made a major in 1852, and lieut.col. in 1853. He was now placed in command of the 5th uhlan regiment; and in 1854 of the 3d cavalry brigade. His advancement continued to be rapid, and in 1858 he was made maj.gen., in 1861 adjutant-gen., and in the autumn of the latter year lieut.gen. In 1864 gen. Manteuffel was engaged in the Sleswick-Holstein war, was present

at the battle of Missunde, and commanded in the engagements and movements which resulted in the occupation of Jutland. After the close of this war he was employed in effecting a solution of the difficulty between Austria and Prussia, and arranged for the convention of Gastein, by which this was brought about. He was now made governor of the duchy of Sleswick, with command of the Prussian troops in Holstein and the marines stationed at Kiel. In 1866 the war between Prussia and Austria broke out, and Manteuffel was ordered into active service. At midsummer he was commanding in chief the army of the Maine, and fought at Hemstadt, Vettingen, Rossbrunn, and Würzburg; receiving from the king for his services the order of merit. At the close of the war he was sent to St. Petersburg on a diplomatic mission, and on his return was made general-in-command of the troops in Sleswick-Holstein, being advanced to the rank of general of cavalry, and a month later made commandant of the 9th army corps. In 1868 he was placed in command of the 1st army corps, and was engaged in the Franco-German war. His corps was under fire at Courcelles and Noisseville, directed the evacuation of Metz and the disposal of the prisoners, and then re-entered active service in a campaign against gen. Bourbaki. Later he operated against the south and south-east armies of the French, and performed most brilliant and effective service. In 1872 gen. Manteuffel was invested with the insignia of the order of the Black Eagle, and was afterward made field-marshal gen., and aid-de-camp gen. to the emperor.

MANTEUFFEL, OTTO THEODOR, Baron von, b. Prussia, 1805; studied jurisprudence at Halle, and in 1827 became a minor magistrate at Berlin. When count Brandenburg undertook the suppression of the revolutionary movement of 1848, Manteuffel was made minister of the interior. In this office he displayed a high order of executive ability, and gained the confidence of the middle classes. In 1850 he took office as minister of foreign affairs. Two years later he was appointed president of the council of ministers, and in 1856 he was sent to Paris as one of the plenipotentiaries to negotiate a peace. He retired from the ministry in 1858.

MANUEL II., PALÆOLOGUS, Byzantine emperor, 1348-1425, succeeded his father, John VI. He had been an associate in the empire in 1372. At the death of his father in 1391, being held as a hostage by sultan Bajazet, he escaped from Nicæa to Constantinople, his own capital, to secure the throne for himself, without informing the sultan. Bajazet, enraged at his breach of faith, marched against him, ravaged the country adjoining Constantinople, and invested the city by sea and land. Manuel applied to the western princes, who sent him an army of 100,000 men under Sigismund, king of Hungary, and John, count of Nevers. The allies, at first successful, were defeated with great slaughter by Bajazet at Nicopolis in 1396, with the loss of 10,000 men. Bajazet then returned to the siege with greater vigor than before. Seeing the determination of the citizens to hold out, he made a private agreement with John, Manuel's nephew, to place him on the throne of Constantinople, and John was to deliver up the city to the Turks, and remove the imperial seat to Peloponnesus. He sent also deputies to the inhabitants, proposing to withdraw his army provided they expelled Manuel and placed John upon the throne. Manuel voluntarily resigned, received John into the city, conducted him to the palace, and then set sail for Venice to ask aid from the western princes against the Turks. Large supplies were promised. The citizens of Constantinople refusing to comply with such a base treaty, the siege was renewed, and its fall imminent when Bajazet was called away to resist Tamerlane. He raised the siege and went against Tamerlane with a large army, but was defeated at Angora, 1401, and taken prisoner. After the defeat and death of Bajazet in 1403, Manuel reigned in peace. He was succeeded by his son John VII., Palæologus.

MANUFACTURES (from Latin *manus*, a hand, and *facio*, I make). Bearing the significance which it gained with its derivation, this word describes the first structures, processes, and compositions designed by the mind of man, and executed by his hand-labor, with more accuracy than it does the accomplishment of the machinery of the present day, to which it is more generally applied. The first articles of manufacture must have been such as could be successfully employed for procuring the necessities of life; and, in fact, the first of such articles that have been discovered, representing the earliest ages of man's existence upon earth of which any traces remain, have been rude mills for grinding grain; knives and other offensive weapons for destroying game; fish-hooks; pointed implements, which evidently filled the place of needles; and stone hammers, axes, chisels, and other tools, used for building purposes (see LAKE DWELLINGS; LABOR). The processes to enforce nature and render its powers applicable to the preservation of human life were therefore, and in this order, the acquisition of food; the clothing of the body to protect it from the elements; and the erection of dwellings, partly for the same purpose, and partly for safety against wild and dangerous animals, and human foes hardly less dangerous in their savage condition. And it is to be observed that the ingenuity and toil of man have ever since been devoted to these purposes; added to which have been the necessities arising from improved or extended mental conditions, and the spread of wants in a direction other than material. Manufactures have therefore included food-processes, the manipulation of fabrics, and building-construction; to which have been added, in the course of time, the art of war, the arts of design, and applied science, as agencies to fulfill the duties imposed by an ever changing and ever-

advancing civilization. It is one of the fortunate incidents of human history that with few exceptions the processes of labor applied to the manufactures may be traced even in our day as these existed at the very beginning. It is possible to follow any art to its inception, and to trace its history to the first rude efforts of primeval man, with a considerable degree of accuracy, affording, when the results of such an investigation are brought into juxtaposition, a comprehensive view of the entire field of human art. Such investigations have been made, and their collected results exist in the industrial museums of Europe and America. Remarkable also is the occurrence of the earliest methods in use in the arts, in actual practice among savage and semi-civilized races in different parts of the world in our own time. The natives of Central and South America, Africa, and certain parts of Asia still employ the same processes in agriculture that were in use thousands of years ago; mills of the same character as those used by the Egyptians many centuries before the Christian era are still in active employment in northern Africa; and pottery of the same design and fashioned after the same methods and with the same tools as among the earliest races, are still made by their descendants in different parts of the world. And while we may thus view at one glance, in operation, methods and tools divided in actual history by many centuries, we are also enabled to follow the progress of the arts and manufactures, their improvement or their decadence, through existing specimens of workmanship. From the beginning in the aggregate—whatever may have been the case with certain nations or races—man seems to have been impressed by a restless spirit, and to have been continually provoked to an active ingenuity in labor. The very first instances of handiwork that have come to our knowledge through the labors of explorers have illustrated the impulse towards improvement. From the stone age to the neolithic, and from that to the age of iron—as we generally record our evidences of these periods—the progress not only in excellence of workmanship, but in beauty, is remarkable. And while it is easy to understand the mental processes that induced endeavor after a higher quality of article when the improvement represented a practical good to be achieved, it is necessary for us to reconcile our ideas of prehistoric man with the fact that he was influenced by a leaning towards the æsthetic, and that even so early he showed signs of struggling toward an improved art-taste. The fact is important that in all the history of manufactures the beautiful has been allied with the practical, with a persistence which seems to have the character of a law.—The next important tendency to be observed in viewing the history of manufactures is that of applying the forces of nature to the reduction of human labor. As it is to this tendency that we owe the inventions which so extended the scope of the arts, its importance will hardly be underrated. Yet it is to be observed that in the beginning the forces of nature, expressed and operative through such rude mechanical devices as were at first invented, were called into operation only when the power of man had proved unequal to the task in hand. Man labored to the extent of his capacity, and only then supplemented his own efforts by the employment of the mechanical powers. There is nothing therefore inexplicable in the fact that while we know the ancients possessed a knowledge of the more hidden forces, and the means to apply them, they did not make use of these in instances where they might, but seem to have preferred the exercise of human force and ingenuity. A noble ambition appears to have influenced man in those early days; impelling him to push to the utmost his individual capacity; and to place upon record, by means of his work, the comprehensive nature of man's ability, his power to meet emergencies, his control, within himself, of a microcosm representing all the possible constructive capacity of the entire world of mechanism. The arts of Greece and Rome, of Babylon and Nineveh, Carthage and Phenicia, as these have been preserved to us, sufficiently illustrate this phase of our subject. But the concentration out of which grew marvelous excellence presently ceased to exist; the fall of Nineveh, Carthage, Greece, and Rome, the inroads of barbarians, and the distribution of power over the face of Europe, blotted out for the time all progress in the arts; and the "dark ages" settled down upon civilization through a gloomy period of centuries, to the utter check of improvement, and to the destruction of the arts and manufactures, except so far as these contributed to positive necessities and to sensual desires. Out of this period of inaction and stagnation of creative ability, civilization burst forth in the 13th c., beginning the "middle ages" and the *renaissance*, a time when man reached the highest pitch of skill in hand-work, and when manufactures attained an excellence in beauty, capacity for service, and durability, which they have never since surpassed even if they have approached. The history of the arts and crafts of Europe in the middle ages shows a surprising advance in all directions. The progress in merit in the fine arts has been fully recognized, and this was reflected in the condition of the crafts and the improvement in manufactures. Directly we see it in the wood-carvings of Brabant, Flanders, and Italy; in the wonderful art displayed in the manufacture of fictile ware; in the form given to bronze, iron, and brass; and in the intricate and beautiful carving of ivory. The most magnificent armor, displaying workmanship of exquisite beauty, is of this period. And so the most commonplace objects—the ordinary utensils of the household, the very architecture of the houses themselves—reflected the splendid genius of the masters of art. And above all, we are bound to consider the honesty of the workmanship peculiar to those days. The linen and wool fabrics of Holland and Flanders have never since been improved upon. The heavy and costly damasks and satins and silks and

velvets, which played so large a part in the costumes of the period, were honest stuffs, whose lasting as well as artistic qualities cannot be gainsaid. The furniture of the period was solid and firmly put together, besides being ornamented and decorated with correct taste and refined sentiment. In the reign of king John in England, the wealthier classes used iron chandeliers and candelabra, and each of these was finished and shaped by hand with the hammer and with the truest art-taste. The story of the Della Robbias, and their labors in search of a special glaze for china, is equaled only by the later story of Bernard Palissy, whose struggles after the same secret, lost again, have furnished the material for many a book. In those days the blacksmith, and the cordwainer or shoemaker, was as proud of his skill, and as earnest in the fulfillment of what he deemed his obligation to his craft, as was the most esteemed artist of Florence or Venice under the patronage of the Medici. Faust, who became a printer, was a goldsmith in Mentz; Hans Sachs was a cobbler; Benvenuto Cellini was a gold and silver smith; Andrea del Sarto, the painter, was a goldsmith's apprentice; and Ghiberti, who executed the two gates of the baptistry in Florence, which Michael Angelo said were "worthy of Paradise," was the son of a goldsmith. Thus, at that time, art and manufacture went hand in hand; the union of the beautiful and the useful being considered not only desirable, but incumbent on the artificer as a part of his trade.

The conditions of labor in Europe, and therefore those of the manufactures, changed materially during the period between the 16th and the 18th centuries. The combinations of workmen into guilds, and the wealth and power to which these attained, brought about the introduction of the force of *capital*, by the concentration of great wealth in a few hands; and the application of this force to manufactures on an enormous scale was brought about by the application of power to machinery, and the establishment of the factory system. From this moment, not only the system of manufacturing, but the character of the workmanship, and of artisans, the nature and amount of the demand for manufactures, the methods of supply, and the modes of transportation, altered throughout the civilized world. The history of manufactures fell under the influence of the invention and application of machinery, to which the arts of design necessarily played a secondary part. From 1771, when the first mill with water-power, and Arkwright's machinery, was set up in England, to 1835, the number of operatives employed in the factories of the United Kingdom had grown to 354,684, of which number 195,508 were females. In 1856 the number of operatives was 682,497, of whom 409,300 were females, 25,982 being under 13 years of age. The number of factories, between 1838 and 1856, increased 28 per cent; the amount of power increased 63 per cent; and the number of hands employed, 80 per cent. In 1786, in every \$200,000,000 in value of the product of manufacture in France, 60 per cent of the cost was for labor, and 40 per cent for raw material. In 1876 this condition was exactly reversed, 40 per cent only of the cost being for labor, and 60 per cent for raw material. In 1876 the total industrial product of France was valued at \$2,400,000,000. These few figures are offered merely for their suggestive value; the statistics of the different articles of manufacture, and in different countries, will be found under their proper titles; see COTTON, LINEN, HATS, etc.

Beverley, in his *History of Virginia*, writing in 1705, refers thus to the dependence of the American colonists upon other nations to supply their wants: "They have their clothing of all sorts from England, as linen, woolen, and silk, hats and leather; yet flax and hemp grow nowhere in the world better than here. Their sheep yield good increase and bear good fleeces, but they shear them only to cool them. The mulberry-tree, whose leaf is the proper food of the silk-worm, grows there like a weed, and silk-worms have been observed to thrive extremely, and without hazard. The very furs that their hats are made of, perhaps, go first from thence. The most of their hides lie and rot, or are made use of only for covering dry goods in a leaky house. Indeed, some few hides, with much ado, are tanned and made into servants' shoes; but at so careless a rate that the farmers do not care to buy them if they can get others; and sometimes, perhaps, a better manager than ordinary will vouchsafe to make a pair of breeches of deerskin. They are such abominable ill-husbands, that though their country be overrun with wood, they have all their wooden-ware from England; their cabinets, chairs, tables, stools, chests, boxes, cart-wheels, and all other things—even so much as their bowls and birchen brooms—to the eternal reproach of their laziness." From which emphatic narrative by an eye-witness it will be inferred that the standard of manufactures in the country under consideration, a century and three-quarters ago, did not offer promise of the results reached at the present time. The first attempt at ship-building in the colonies was in the construction of the *Onest* in 1614 at Manhattan river. She was 16 tons burden, 38 ft. keel, 44½ ft. long, and 11½ ft. wide. In her, in 1616, capt. Wilkinson discovered the Schuylkill river, and explored nearly the entire coast from Nova Scotia to the capes of Virginia. The saw-mill is said to have been introduced into Massachusetts in 1633, some years before it was used in England. And as late as 1767 a saw-mill was destroyed in the latter country by a mob, because it was supposed to be destructive to the work of the sawyers. In 1641 the general court of Massachusetts passed an act to the effect that there "should be no monopolies but of such new inventions as were profitable to the country, and that for a short time only." Saw-mills were introduced by the Dutch in New York as early as 1633, and seem to have been used there also for grinding-mills.

The erection of these mills brought about an improvement in house-building, which had previously amounted only to the construction of huts or wigwams. The first brick-kiln in New England was set up in Salem, Mass., in 1629. In New York bricks were imported from Holland, until governor Stuyvesant introduced the industry. There were certainly tanners, cart-makers, glovers, furriers, and shoemakers in the colonies about the middle of the 17th c., despite the assertion of Beverley, whose observation, however, was probably confined to Virginia.

In the manufacture of fabrics the early colonists used the distaff and spindle, soon superseded by the spinning-wheel. The British in those days, seeking to force the colonists to buy everything in the home market, threw every possible obstacle in the way of domestic manufactures. Early in the 18th c. spinning-schools were started in Boston, and special taxes were imposed for their support. During the revolutionary war the colonists depended on their own exertions for clothing and other necessities, and Hargreave's and Arkwright's inventions were not permitted to be introduced across the Atlantic, so jealous were the British of the trade in their manufactures. Despite all their efforts, however, a cotton-factory was established at Beverly, Mass., in 1787; of Arkwright's machines, the first used in the United States was in a mill at Pawtucket, R. I., in 1790. The first cotton-mill ever built in the world, which combined all the requisites for making finished cloth from raw cotton, is said to have been erected in Waltham, Mass., in 1813. Our colonial ancestors usually obtained their furniture from England, the most of it, of the best class, being made of mahogany and oak. At first the articles made in the colonies were of the rudest character, and constructed of native woods. Later on, a South American and West India island trade sprang up, and mahogany and rose-wood were imported, and worked up into bedsteads, sideboards, and cupboards. The first nails made in the colonies were manufactured by hand, and it was customary among the country people to erect forges in the chimney-corners, and in the long winter evenings to make quantities of nails—even the children taking a share in the labor of this industry. About 1790 a machine for cutting and heading nails was invented by Jacob Perkins of Newburyport, Mass., which is said to have had a capacity of 10,000 nails per day. Another machine, invented by a citizen of Bridgewater, Mass., made, in 1815, 150,000,000 tacks. The introduction of the manufacture of glass into the American colonies was contemporaneous with the settlement of the country; the first glass manufactory being set up in the woods about a mile from Jamestown, Va., in 1607. In 1621 a fund was subscribed to establish a factory of glass beads, to be used as currency in trading with the Indians for furs. The first glass manufactory in Massachusetts was established at Germantown, near Braintree, for glass bottles alone. In 1639 a glass-house was set up in Salem. In 1752 the general court of Massachusetts passed an act granting the sole privilege of making glass in the province to Isaac C. Wesley. A glass-house existed in Philadelphia in 1683. Pottery was brought out from England and Holland by the first settlers, but the early colonists used wooden dishes and pewter platters. Some pottery was made by the Plymouth, Jamestown, and Manhattan colonists. In 1819 the manufacture of fine porcelain was commenced in New York, and in 1827 it was made in Pennsylvania. The manufacture of hats was considered of importance by the colonists, and in 1662 the colonial government of Virginia offered a premium of 10 lbs. of tobacco for every hat made in the province. Protection was early applied to the raw material of this industry, and in 1675 its exportation was prohibited. Before 1800 this manufacture was conducted in nearly every state in the union, and by the census of 1810 returns were made of the manufacture of hats to the amount of \$4,323,744.

Silk-worm culture was proposed by James I. on the settlement of Virginia, and that monarch sent supplies of silk-worms' eggs to the colony from his private stores. In fact, more or less silk was raised in all the colonies. In 1788 the president of Yale college wore at commencement a silk gown made from materials raised and woven in Connecticut. A piece manufactured from silk raised near Charleston, S. C., in 1755, was made into three dresses, one of which was presented to the princess dowager of Wales, another to lord Chesterfield, and a third to Mrs. Harvey of South Carolina, in the possession of whose family it still remains. In 1837 the manufacture of silk in the United States received a powerful impulse from a report of the congressional committee on manufactures in favor of this industry. It was stated that one specimen of the *morus multicaulis*, or mulberry, would sustain a sufficient number of silk-worms to raise 120 lbs. of silk, worth \$640. Attention was directed to this industry in nearly all the states, and a condition of excitement occurred which became intensified by the promise of large fortunes. In the following year this excitement culminated in a degree perhaps never equaled by any similar movement, except the great "tuber" or bulb excitement, in Holland and England. Single mulberry-trees sold at \$10, nurseries were established and did a thriving business, and thousands of persons invested in the new speculation. Two years later a revulsion of interest occurred. Most of the nurseries were abandoned or destroyed, and *morus multicaulis* trees, healthy and well-branched, were offered at three cents each without finding buyers. See SILK.

The manufacture of ladies' shoes began early in colonial times, and the town of Lynn, Mass., has been distinguished for this branch of industry almost from the time of its settlement. The first shoemakers in Lynn were established in 1635, and the first shoes made by them were of woolen cloth or neat leather only. Until 1800 shoes were made

with wooden heels, covered with leather, but after that time leather heels were substituted. The first invention of importance in this manufacture was the pegging machine; the next was the last-machine invented by Elias Howe. Another important invention was the McKay sewing machine, for stitching the uppers and soles together. In 1870 Lynn produced 187,530 cases of boots and shoes, of 60 pairs each, being 11,250,000 pairs, valued at \$17,000,000. An important manufacture, and one which is now more than a century old in the United States, is that of combs. These were at first imported from England by the colonists, but in 1759 an iron comb manufactory was in existence at West Newbury, Mass., where the business is still extensively conducted. In the same year there was a comb manufactory in Pennsylvania, and in 1793 one in Boston, and two or three in Leominster, Mass. The first machine for making combs was patented by Isaac Tryon in 1798. In 1809 three manufactories were established in Connecticut. At first the teeth were cut singly by a fine steel saw; but in 1814 a patent was granted for a machine which cut all the teeth at one operation. The invention of vulcanized India-rubber effected a revolution in the comb manufacture. An important manufacture is that of the cards used in the manufacture of cotton and woolen cloths. During the colonial period these cards were manufactured by hand-labor; and in that form their making continued to be a valuable branch of industry until the latter part of the 18th century. In 1777 Oliver Evans invented a machine for making cards, which is said to have produced them at the rate of 300 a minute. In 1784 another machine was invented which cut and bent the teeth, and had a capacity of 86,000 an hour. Cannon and cannon-balls were cast in Massachusetts as early as 1664. In 1748 a foundry at Bridgewater, Mass., made from 3 to 42 pounder guns; and during the revolution, cannon, cannon-balls, and shells were made in Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, and Maryland. Up to 1857 about 300,000 cannon had been cast in the United States. The manufacture of wall-paper did not begin in the United States until 1765, and in 1789 a production of 16,000 pieces per month in Philadelphia was considered a fair quantity. The first patterns with glazed grounds were made in 1824, but soon after the best French designs began to be imitated. The manufacture of iron was naturally one of the earliest industries practiced in the colonies. In 1620 there were iron-works at Falling Creek, in the Jamestown, Va., settlement, but the following year the place was attacked by Indians, and the inhabitants massacred, which stopped the manufacture of iron in that locality, and it was not resumed there until 1712. The first iron manufactory in Massachusetts was set up in Lynn about 1663, the village about the works being named Hammersmith, after the place of the same name in England, whence many of the workmen employed there had emigrated. The first article of iron said to have been cast in the American colonies was made at these works, being a small iron pot capable of holding about a quart. In 1750 there were in existence in the colonies 3 iron-mills and one furnace. The description of a furnace erected in 1794 in the town of Carver, Mass., mentions that 10 forges were there employed in making bar iron from scraps to the amount of 200 tons annually. Another of the early colonial industries was the manufacture of cordage, and as early as 1631 it was made in Boston, and in Charlestown, Mass., in 1662; in 1698 there were several rope-walks in Philadelphia; and in 1794 Virginia and Maryland had each more rope-walks than any two of the northern and eastern states. In 1804 a spinning and twisting mill for making cordage was patented in the United States. The first paper-mill in America of which we have any account was erected at Roxborough, near Germantown, in Pennsylvania, about 1693. This was 50 years after printing had been introduced into the colonies, but only 5 or 6 years after a proclamation had been issued by the English government for the establishment of the first manufactory of white paper in England. The paper-mill in question was built by an ancestor of David Rittenhouse—whose family in Holland had long been engaged in the manufacture of paper—and William Bradford, the first printer in Philadelphia. In 1728 Bradford, when government printer in New York, owned a paper-mill in Elizabethtown, N. J., which was probably the second one erected in the colonies. Benjamin Franklin was, at various times, interested in the erection of 18 paper-mills. In 1787 there were 63 mills in operation in all the states. It is said that the first manufacture known to American history was that of salt, which was undertaken by the colonists at Jamestown, Va., in 1620. The first mill set up in New England was a wind-mill, near Watertown, Mass., which was taken down in 1633 and erected on Copp's hill in Boston. In New York the first mill was a horse-mill, which was built in 1626 on the site now occupied by Trinity church in that city. Agricultural implements were not made in America until a comparatively recent period. One of the first persons to make a plow was Thomas Jefferson, who attempted to solve the mathematical problem of the true surface of the mold-board, and in 1793 had several plows made after his patterns, which he used on his estates in Virginia. The first American, after Mr. Jefferson, who made plows for common use was a farmer living in New Jersey, by the name of Charles Newbold, who invented the first cast-iron plow made in America. The manufacture of beer was undertaken in the very earliest history of the colonies. One John Appleton set up the first malt-house in Massachusetts in 1640. In 1633 Wouter Van Twiller caused the erection of a brewery in New York city. The distillation of brandy commenced in the colonies in 1640. Wine was made in Virginia from the native grape by French colonists, who came over for the purpose, before 1622. In New England governor Winthrop

planted a vineyard as early as 1630, and Governor's island, in Boston harbor, was granted for this purpose in 1634.

The first cloths ever made in the colonies were the result of a bounty offered by the general court of Massachusetts in 1640. In the following year this bounty was given to several persons who made attempts at this manufacture; probably, at first, a coarse description of linen. The first systematic effort at the manufacture of woollens was by a company of Yorkshire men in 1644 at Rowley, Mass. At this period cotton was obtained from Barbadoes, while hemp and flax were native. Cotton seeds were first planted in the colonies in 1621; the plant was introduced into the Carolinas in 1666. It was grown only as a garden-plant, however, until after the revolutionary war. The first exportation of raw cotton occurred in 1754. In 1775 a corporation was formed in Philadelphia called the "United company of Philadelphia for promoting manufactures," of which Dr. Rush was president. Its object was "to establish American manufactures of woollens, linens, and cottons, with a view to the exclusion and supersedure of British goods." The company possessed a spinning-jenny, newly imported from England, and employed in their factory 400 women. Two years later this company contracted with congress to supply clothing for the army.—A report made to the British house of commons in 1731, by the board of trade, on colonial industries, stated that in the American colonies the settlers had "fallen into the manufacture of woollen cloths and linen cloths, but for the use of their own families only; that the very high price of labor rendered it impracticable for them to manufacture such articles at less than 20 per cent dearer than that exported from England; that the greater part of the clothing worn in the province of Massachusetts Bay was imported from Great Britain, and sometimes from Ireland; that there were a few hat-makers only in the maritime towns; that there were no manufactures in New York worth mentioning, or in New Jersey; that the chief trade of Pennsylvania lay in the importation of provisions, no manufactures being established, and their clothing and utensils for their houses all imported from England; that in Massachusetts Bay some manufactures were carried on, as brown holland for women's wear, which lessens the importation of cloaks and some other sorts of East India goods." This report, in view of what has been heretofore stated, will be seen to exhibit a desire to underrate the manufacturing industry of the colonies; which was, however, already encroaching seriously upon the demand on the home market.

This brief statement concerning the early history of American manufactures is chiefly of interest in displaying, by contrast, the vast movement which took place in the century following the revolutionary war. In the United States, as elsewhere throughout the world, the organization of local, national, and international exhibitions has forwarded this movement with a rapidity and a result of excellence otherwise unattainable.

The gross statistics of manufacturing in the United States were given in the U. S census for 1870 as follows:

Establishments.....	252,148	
Steam-engines—Horse-power.....	1,215,711	}
Water-wheels—.....	1,130,431	
Hands employed—Males above 16.....	1,615,598	}
" " —Females above 15.....	323,770	
Capital.....	\$2,118,208,769	
Wages.....	775,584,343	
Material.....	2,488,427,242	
Products.....	4,232,325,442	

The increase in the different elements of this manufacturing industry as between 1850-60 and 1860-70 was as follows:

	Percentage of increase 1850-60.	Percentage of increase 1860-70.
Establishments.....	14 per ct.	80 per ct.
Hands employed.....	37 " "	33 " "
Capital.....	Doubled.	Doubled.
Wages.....	60 per ct.	More than doubled
Material.....	More than doubled.	" "
Products.....	85 per ct.	2½ times greater.

The approaching publication of the U. S. census returns for 1880 will afford material in tabulated form by which it will become practicable to deduce important conclusions, and possibly to establish the existence of positive laws controlling the movement of the manufacturing industry as a whole, and in its relation to the most vital economic interests—not of the laboring classes alone, but of the race.

MANUMISSION, the form by which, in ancient Rome, slaves or other persons not *sui juris*, were set free. There were three ways in which the release might be accomplished, viz., by *vindicta*, census, or will. The oldest of these forms was the *vindicta*, which was as follows: The owner of a slave brought him before a magistrate and made a statement of the grounds upon which he proposed to make him free. Then the lictor laid a rod on the head of the slave and declared him free, the master pronouncing the

words "I wish this man to be free," and at the same time turning him about and letting him go. Then the magistrate proclaimed his freedom. Freedom by census was effected by the slave giving in his name, by direction of his master, at the lustral census. By will a slave could be freed conditionally or unconditionally, or made free and an heir to the testator. The laws at different periods placed restrictions upon the right of the master to manumit his slaves, such as limiting the number he might set free, and preventing him from defrauding his creditors. The manumitter stood to the manumitted in the relation of a patron to a freedman, and if the former were a citizen the latter became a member of his *gens*, and assumed his family as well as personal name, to which he added such surname as pleased him, but commonly that by which he had been known as a slave.

MANUSCRIPT, from the Latin *manu scriptum*, written by hand, the original writing of a book, tract, or pamphlet prepared for the press. The ancient manuscripts were inscribed on papyrus, or parchment, and were preserved in sheets or rolled. The Egyptians rolled their papyrus manuscripts with regard only to the length of the subject treated; brief monographs being preserved flat, while treatises of greater length were formed into rolls whose extent was only governed by the comprehensiveness of the subject and the fluency of the writer. Manuscripts on parchment or vellum were at first made in rolls, but about the 3d c. these began to take the form of flat pages, precisely as in our books, and usually quarto in size. Mexican manuscripts when not rolled were folded as we do a map, and had covers of wood for their protection.—The multiplication of manuscripts among the Greeks and Romans, in the absence of any art of mechanical reproduction, became of necessity a matter for system and regularity so far as this was possible. At first, the art of transcribing belonged almost wholly to such among the slaves as became adept in writing. As the system of slavery among those nations was one of minute subdivision into classes, to each of which was allotted a specific kind of duty, this became comparatively easy, certain slaves who displayed facility being specially educated to be copyists. Of course, the value of a slave was increased by his becoming efficient in the practice of this art, and this fact becoming obvious the art was adopted in Rome by persons who became professional transcribers, not being slaves. And as early as the 5th c. this had become a business in which, in some cases, a number of persons were associated together, and these were bound by agreement, and by rules and regulations, formally adopted. The Egyptian papyri were, as a rule, written in black and red, with occasional ornamentation by the use of other colors, and even of gold. Sometimes to these were added pictorial illustrations of remarkable taste and delicacy of execution. Fourth and 5th c. manuscripts have generally the body of the writing in black ink, the initial letters being in red, with some display of ornamentation in form: sometimes several of the beginning words, or even two or three lines, are in red ink. The Arabic, Persian, and Syriac manuscripts are often illuminated, frequently much gold is used, and arabesque designs are common among these: the Koran does not permit the drawing or other representation of the human figure, and this character of ornamentation does not therefore occur among oriental manuscripts. The fashion of introducing pictorial art into the making of manuscripts was one which began at a very early period. There is a manuscript extant in which figures of human beings are used for illustration, which dates back to the early part of the 4th century. Varro, who lived in Rome in the 1st c. B.C., was the friend of Cæsar, and was directed by him to form a public library, is said by Pliny to have written a work of biography which he illustrated with many hundred portraits. A copy of *Dioscorides* in the imperial library at Vienna is illustrated with pictures of plants; and a 4th c. *Virgil* in the library of the Vatican is filled with decorative miniatures. A manuscript, which has been partly destroyed by fire, exists in the British museum library, which is still more remarkable in the way of illustration. It contained originally portions of both the Old and New Testament, and was ornamented with 250 miniatures, each of them 4 in. square, some of which remain in the partly destroyed fragment, the date of which is supposed to be about the 6th century. A copy of Homer's *Iliad* in the Ambrosian library in Milan, very ancient, is adorned with miniatures. Among the colors employed in writing in those early times were purple, green, blue, and vermilion, with gold and silver. The university of Upsala in Sweden has a splendid specimen known as the *Argenteus Codex* (see *ULFILAS*), which is written in letters of silver with initials of gold on violet-colored vellum. It was not until after the 4th c. that the initial letters were made larger than those in the body of the text; after that they increased in size until they were several inches in height, and sometimes even occupied an entire page. The Irish manuscripts of the 7th to the 10th c. displayed the most extraordinary forms of initials, being grotesque in character; objects from natural history were united by complicated patterns of interlaced work, the whole effect being unlike anything else in manuscript anywhere, and apparently original with the Irish illuminators, to whose work we shall return further on. The early Frank manuscripts show the influence of oriental styles, the illuminated initials being adorned with arabesques, combined with foliage patterns. The earliest Greek and Latin manuscripts were written without points or divisions, in square capital letters. Uncial writing was in use at the same time, and superseded the other style in about the 6th c.; it differed from the latter in being a combination of capitals and small letters, and led up to the

curse or flowing writing, which became customary by the 10th century. Abbreviations were employed very early in the history of manuscripts, and by the 12th c. had become so general that manuscripts of that period are exceedingly difficult to read. Among such abbreviations, and tending to complicate still more the task of reading, are the arbitrary signs invented by Tiro, Cicero's freedman, for his system of short-hand. Punctuation was not known until the 10th c., when the comma first came into use, to be followed by exclamation and interrogation points, and the parenthesis five centuries later: about the 12th c. we first meet with the Arabic numerals in manuscripts.—First among the ancient manuscripts still in existence are the rolls of papyrus found in the tombs of Egypt, and which are frequently exhumed in a perfectly preserved condition—after having been buried for thousands of years—owing to the dry climate and the entire want of humidity in the sandy soil. Among these are both Egyptian and Greek manuscripts, the former being in hieroglyphic, hieratic, or demotic characters, and nearly always of a religious nature, and having special reference to the dead. One of these papyri, existing in the national library in Paris, is supposed to be of a period nearly four thousand years before Christ: it is a moral treatise, written by an Egyptian prince. There are also found many business documents, bills of sale, accounts, and letters, which are written in the demotic character. Of the Greek manuscripts on papyrus one of the oldest known to be in existence is of the 3d c. B.C., a portion of one of the books of the *Iliad*; another, found at Herculaneum, is part of a musical work by a writer of the 1st c. B.C., and is of that period. A petition to one of the Ptolemies, of the 2d c. B.C., exists in Paris. In the British museum there are rolls of parchment more than 3,000 years old, though the date of the invention of this material has been ascribed to the 2d c. B.C. The oldest parchment manuscript of a date since the beginning of the Christian era, is supposed to be the palimpsest (q.v.) of Cicero's *De Republica*, attributed to the 2d c., and now in the Vatican library at Rome. There are also in that library a copy of *Terence* of the 4th or 5th c., and a *Sallust* of about the same period. The celebrated Medicean *Virgil*, nearly perfect, is in Florence, in the Laurentian library; it is also of the 4th or 5th century.—The oldest manuscript of the Bible known to be in existence is the *Codex Sinaiticus*, found by Tischendorf in a convent on Mt. Sinai, and placed in the imperial library of St. Petersburg; it is believed to be of the 4th century. The *Codex Vaticanus*, a Greek manuscript of the Bible, is of about the same period with the last, though this is not so well authenticated. The *Codex Alexandrinus*, in the British museum, is of the middle of the 5th c.; and the *Codex Bezae*, in the library of the university of Cambridge, Eng., of the 6th century.—Returning to the subject of ornamentation in this connection, and reverting to the labors of the Irish illuminators, we may properly quote from an English authority in regard to the importance and value of this class of manuscripts: "To the remotest of these nations the praise is due of having invented and developed an independent school of ornamentation, and one destined to become a formidable rival to the traditional splendors of eastern art. In Ireland, as far back as the 5th c., a style of art had been practiced, which in the succeeding centuries attained a perfection almost incredible. In nearly complete isolation from the rest of the civilized world, having few opportunities of seeing and admiring the works of the great Greek artists, their method of ornamentation exhibits no artistic power in the higher sense of the word, but is remarkable for a fine harmony of color, and a precision of technical execution little short of miraculous. The principal features of the style are an intricate and tortuous interlacing of narrow threads or ribands, generally in symmetrical patterns, sometimes filling up a letter, sometimes extending over a whole page; now the introduction of a number of circular ornaments, now filled by marvelously delicate spiral lines proceeding from the center, now by bolder wheel-like patterns of endless variety of design; to these may be added the use of numbers of birds and animals coiled up in endless and seemingly inextricable confusion, sometimes varied by the introduction of the human figure, and patterns formed of diagonal and straight lines, generally in squares or compartments, the idea of which some writers assert to have sprung from the remembrance of tessellated pavements." A copy of the gospels, called the *Book of Kells*, of the 7th c., is a manuscript of this style in the library of Trinity college, Dublin. This peculiar method of design was early introduced into England by Irish missionaries, and a splendid specimen of its adaptation is preserved in the celebrated *Durham Book*, in the British museum, which was executed at Lindisfarne at the commencement of the 8th century. In this may be traced at once a stronger influence of the Byzantine types; and though it is a most superb specimen of writing and decoration it does not exhibit the same originality or fertility of imagination as the works of the Irish school. From England the new style passed quickly to the continent, and was soon adopted and largely used by the illuminators, and it is curious to notice in the manuscripts of the succeeding centuries, prolific in works of splendor and elegance, the admixture of the Celtic ornament with the remains of classic design. A change of style was introduced by the illuminators of England of the 10th century. This consisted in the introduction of foliage. At first it was of an entirely rudimentary character, and exhibited none of the botanical skill or study of nature so closely observed in later times. It was, in fact, a reflection of the architectural styles then becoming dominant, the ornaments and moldings of the great architectural works of the time being now adapted to the processes of book ornamentation. A magnificent specimen of this new style still exists in the *Benedictional* of St.

Ethelwold, in the possession of the family of the duke of Devonshire. This manuscript was executed at Winchester (the great school of the arts in England) at the close of the 10th century. In the succeeding century the style became more developed, the forms of the leaves more freely drawn and less archaic, but in the 12th c. conventionalism became the rule; ornamentation had grown to be luxuriant and fantastic; and the work produced was perhaps the most magnificent of any age. By the next century the tendency was towards naturalism, and men's minds were turned to a study of living forms, with the result of a wonderful advance in the character of the work. The initial letters of manuscripts of this period became glorious in burnished gold, scarlet, and blue. In the miniatures of manuscripts gold backgrounds were constantly employed, more especially in those of French artists. In the 14th c. the gold and plain backgrounds gave way to rich patterns of diaper and checker work, and the heavy mass of burnished gold was divided into minute patterns or was entirely superseded by variegated color. In the 15th c. floral decoration became common; and the introduction of a background of pure landscape in the miniatures is a feature of this period.—Throughout the whole of the dark and middle ages the value attached to the possession of manuscripts, and the activity shown in multiplying them, are very remarkable. Long previous to the 12th c. the most active zeal was displayed in search after ancient texts, even of profane authors. “In the middle of the 9th c. Lupus, abbot of Ferrières, earnestly requested from the pope and the bishops of England and Ireland the loan of manuscripts of ancient writers, that copies might be made of them; and in 1040 count Geoffroy of Anjou gave to the abbey of Notre Dame of Saintes the tithe of the hides of the deer killed in his forests to furnish a fund to bind the books of the monastery” (Silvestre). The same writer mentions also the veneration paid in the 15th c. to the Florentine *Pandects* of the Laurentian library, a magnificent volume written in the 7th c., and esteemed the most valuable of the manuscripts of the Roman law. This manuscript was taken from Pisa by the Florentines in 1406, and after its deposition at Florence “was regarded with almost religious veneration, being shown only to the highest personages, with great ceremony, in the presence of the chief magistrate, accompanied by monks, barcheaded, and bearing lighted tapers.” The price of manuscripts in the middle ages offers some interesting points for reflection. There is one account of a contract made in 1346 for writing a volume containing psalter, hymnal, and collectary, ornamented with illuminated letters in gold, azure, and vermilion, for which the charge was 16 shillings. A 14th c. Bible captured at the battle of Poitiers, sold for 100 marks, at that time a sum representing about \$1500. There is a manuscript in the British museum, which was pawned by its possessor five successive times between 1483 and 1510, a fact showing how readily money could be raised at that period on this species of property: in 1488 it was pawned for 28 shillings, and in 1510 for 20 shillings. Sometimes sums of money were deposited by borrowers of manuscripts as security for their safe return.

MANUTIUS, or MANUZIO, ALDUS, or ALDO, the Younger, 1547–97; b. Venice; son of Paulus Manutius. He was remarkably precocious, publishing a collection of specimens from Latin and Italian literature when only 11 years of age; and a work on Latin orthography when 14. He was not, however, so successful in after-life as his boyhood promised. He succeeded to the printing business of the family, but was less qualified than his predecessors in the management to conduct it to advantage. He retired from the business in 1584, resigning it into the hands of one his employees; and during the remainder of his life was professor of belles-lettres in Bologna, Pisa, and Rome. He possessed considerable learning, and edited some of the classics for publication.

MANUTIUS, or MANUZIO, PAULUS, or PAOLO, the Younger, 1512–74; b. Venice; youngest son of Aldus Manutius; and, like his father, a printer and editor. He had the charge of the business of the family after the death of his uncle; and having surrounded himself with the available learning of the period and region, he devoted himself to the production of the Latin classics in valuable revised editions. On the foundation of the Venetian academy in 1558 he received the appointment of professor of eloquence and director of the academical press. In 1561 he went to Rome to superintend the printing of the works of the fathers. His impressions bear favorable comparison with those of his father; and besides being a man of mechanical knowledge, skill, and taste as to the prosecution of his art, he was a scholar of much erudition, and a critic of acumen. He translated into Latin the *Philippics* of Demosthenes; and published commentaries on the *Familiar Letters* of Cicero; and the *Orations*; as well as scholia on the oratorical and philosophical treatises of the same author. See **ALDINE EDITIONS**, *ante*.

MANZANARES, a t. in Spain, in New Castile, province of Ciudad Real, 98 m. s. of Madrid, situated in a vast plain 1882 ft. above the sea level; pop. 10,275. The high-road of Andalusia, which passes through it, forms its main street. The houses are well built, with open courts, which are covered in summer with awnings. It contains good schools, a hospital, and a parish church of modern Gothic architecture. The country around is flat, requiring irrigation to render the soil productive. The climate is healthy and delightful; productions are wheat, rye, anise, saffron, potatoes, wine, and oil. There are manufactures of linen, woolen cloths, soap, and brandy; and the town has a reputation for the manufacture of carriages, and for iron work.

MANZANILL'O, a t. on the s.e. coast of the island of Cuba. It has a good harbor and carries on a considerable export trade in sugar, tobacco, and timber. Pop. 5,643.

MAPES, JAMES J., LL.D., 1806-66; b. New York, where he was for a time a merchant and sugar-refiner, then professor of chemistry and natural philosophy in the national academy of design. He was the inventor of various useful processes in industrial chemistry. In later years he entered into the business of a scientific agriculturist near Newark, N. J., and was very successful. His knowledge of chemistry made him an expert in fertilizers, in which he was an extensive dealer. He was for a time editor of the *Working Farmer*, and published many papers and addresses on chemistry and agriculture. He also published the *American Repository of Arts*, etc., in 4 vols., the *Practical Farmer*, and other works. He spent considerable time in investigating the phenomena of spiritualism, with what conclusion is unknown. Died at Newark.

MAPIMI, a desert in n. Mexico, extending s. from the Rio Grande $4\frac{1}{2}$ degrees of latitude, and being about $2\frac{1}{2}^{\circ}$ in width, or about 525 sq. miles. The name is taken from a mining town of about 5,000 pop. on the border of the desert. There is very little vegetation, but the presence of gold, silver, iron, and coal is claimed. Parts of Chihuahua, Durango, and Coahuila are included in the tract.

MAQUET, AUGUSTE, b. in Paris, 1813; educated at the college Charlemagne, where he was for a time teacher. Having written the drama entitled *Bathilde*, he was introduced to Alexandre Dumas to have it examined. The latter was struck with his talent, and proposed their working together. It is said that a considerable part of the romances which Dumas published previous to 1845 were largely from Maquet's pen. In 1851 he began publishing romances under his own name, which are highly appreciated in France. He has been president of the commission of dramatic authors and composers. His work in aid of Dumas embraced fifteen of his most famous novels. Under his own name since, are the romances *Histoire de la Bastille*; *Prisons de l'Europe*; *Belle Gabrielle*; and many others. For the theater he has prepared *La Fronde*, an opera; *Le Château de Gautier*; *Le Comte de Lavernie*; *La Belle Gabrielle*; and many others, in addition to the joint works of himself and Dumas, most of which he dramatized.

MARABOU' STORK, the African name of the adjutant stork, pouched adjutant, or argala of India. The sausage-like pouch which hangs from its neck is capable of being inflated, giving the bird a strange appearance. It is gregarious in its wild state, frequenting the mouths of rivers, and living upon animals too large for other storks to swallow. It is easily domesticated, but its exceeding voracity impels it on every occasion to purloin chickens, turkeys, legs of mutton, cats, puppies, etc., swallowing them whole. Land tortoises 10 in. long have been found in its maws. See ADJUTANT, *ante*.

MARAÑON. See AMAZON, *ante*.

MARANS, a t. of France, department of Charente-Inférieure, near the union of the Sèvre-Niortaise and the Vendée, 13 m. n.e. of La Rochelle; pop. 3,217. It is well built, has a good bridge over the Sèvre, which is navigable here for vessels of 100 tons. By a canal recently constructed, ships of 300 tons can come to the town. The trade is principally in corn, wine, brandy, hemp, flax, timber, and salt. The surrounding country having been recovered from the sea, abounds in salt marshes, and is intersected by canals.

MARASH', a pashalic of Asiatic Turkey, is bounded n. by that of Sivas, e. by Diarbekis, s. by Aleppo, w. by Karamania. The greatest length is 130 m. and breadth 105 m.; pop. 248,000. It belongs to the basin of the Euphrates and the Jyhoon. The former river is the e. boundary, while the latter rises near its center and flows through it s.w. The district is mountainous and wooded except in the valleys of these rivers. It is crossed from w. to e. by the Taurus ridge and by the Anti-taurus and the Durdun Tagh. The climate is mild, and the country is well adapted to pasturage. The capital is Marash on the Jyhoon, 60 m. n.e. from the sea.

MAR'ATHON (*ante*), was named from the hero Marathos, and known in Homer's time. Here legend relates that Eurystheus was overcome by the Heraclidæ and Iolaus, and here took place the contest of Theseus and the bull. When Pisistratus was driven from Athens to Eubœa, Marathon was the first place occupied by him on his return. On the day of the great battle the Persian forces were under the command of Datis and Artaphernes, while Miltiades had eleven generals under his orders. Ancient writers differ widely in their estimate of the numbers of the invading forces. Plato declares that there were 500,000 in all; Trogius Pompeius, 600,000, but Cornelius Nepos says that of the effective force, there were 100,000 foot soldiers, and 10,000 cavalry. This last estimate is probably near the truth, as it agrees closely with the statement of Herodotus that the whole force was transported in 600 triremes, each carrying 200 men. All writers agree that the Greeks numbered about 10,000; so it is safe to say that they were outnumbered at least ten to one. They were materially assisted, however, by their slaves, who are not included in the 10,000. The result of the battle was due to the rigid discipline of the Greeks, in comparison with whom the Persians were but an unruly mob, and to the military genius of Miltiades. Of the 10 generals, 5 were opposed to giving battle, and the deciding vote of the polemarch was given at Miltiades's urgent persuasion. Each general in succession held the chief command for one day, and it

was so arranged that the battle should take place on the day when Miltiades was in command. The Persians lost about 6,400 men; while of the Athenians only 192 fell. Among them, however, was the polemarch Callimachus, Stesibius, one of the generals, and several men of high rank. Remains of the weapons used in the contest are still to be found on the field. Two mounds or *tumuli* were erected in the center of the plain, one commemorating the valor of the Athenians who perished, and setting forth their names and rank on carved pillars, and the other raised for the Plataeans and slaves. The remains of these tombs, and of the marble trophies erected, may still be seen.

MARATHON, a co. in n. Wisconsin, area, 5,520 sq.m.; pop. '80, 17,121; foreign, 6,451. It is drained by the Wisconsin river, and its tributaries, the Big Eau Claire, Big Eau Pleine, Little Eau Pleine, Clover, and others. The surface is level, and much of it is covered with a heavy growth of timber—ash, beech, birch, elm, maple, and pine. The principal crops are wheat and oats. The manufacture of pine lumber is extensively carried on. The Wisconsin Central, and Wisconsin Valley railroads pass through it. Co. seat, Wausau.

MARATTA, or MARATTI, CARLO, 1625–1713, a Roman from the Marches of Aucona; an enthusiastic disciple of the Raphael school; an admirable copyist, and one of the most conscientious and skillful of painters in restorations. It is to his unwearied industry that modern times are indebted for the degree of preservation that the grand frescos of the Vatican and the masterpieces of Raphael in the Farnese palace and elsewhere have exhibited. They had already, in his time, so altered as to threaten soon to be ruined. Maratta opposed the tendency to immense frescos, and dissuaded his pupils from works of unusual size. His forte lay in paintings where the Virgin Mary was the principal subject, and of this class nearly every gallery in Europe has his works. But he was author also of other pieces of great merit. His daughter Maria, married to Zappa, was both poet and painter.

MARBEAU, JEAN BAPTISTE FRANÇOIS; b. at Brives, in Corrèze, France 1798. After practicing and writing upon law for some years, he became interested in the unfortunate condition of certain classes around him; and in 1844, while engaged in making a report on the asylums in his neighborhood, he became greatly interested in the uncared-for children of mothers who are obliged to go out to work as soon as their children cease to nurse. He felt that there was a gap in benevolent asylums for children, and could not rest till he had done something to fill it. He opened the first *crèche*, or infant asylum, in France, and wrote a work entitled *Des Crèches*, which has been translated into several languages. The profits of its publication he gave to the infant asylums of his own neighborhood. From the beginning made by him the system has extended through France, the civilized countries of Europe, and to the United States. In 1871 there were 81 asylums for infant children in France alone. Marbeau's philanthropic works, besides *Des Crèches*, are: *Politiques des Intérêts, ou Essai sur des Moyens d'améliorer le Sort des Travailleurs* (Paris, 1834); *Étude sur l'Économie social* (1844); *Du Pauperisme en France et des Moyens d'y porter Remède, ou Principes d'Économie charitable* (1847); *De l'Indigence et des Secours* (1850).

MARBECK, JOHN, d. about 1585, was organist of Windsor in the reign of Henry VIII. and his successor. An association having been formed in 1544 in support of the Lutheran doctrines, Marbeck joined it. Among the members were a priest, a singing man of St. George's chapel, and a tradesman. They were arrested on a charge of heresy. Their papers were seized, and in Marbeck's handwriting were found notes on the Bible and a concordance in English. The special charge against him, it is said, was that he had copied an epistle of Calvin against the mass. They were all condemned to the stake, but Marbeck, on account of his musical talents, and through the interposition of Gardiner, bishop of Winchester, was pardoned and restored to his place as organist. He lived to see the triumph of his principles, and to publish his work, *The Boke of Common Praier, noted*. A new edition was published by Robert Jones, of Ely cathedral, entitled *Marbeck's Book of Common Prayer, for voices in unison, arranged for modern use, with an ad libitum organ bass accompaniment*. He finished also his *Concordance*. A *Te Deum* of his, and a mass for five voices, are found in Smith's *Musica Antiqua*, now in the British museum. In 1574 was published *The Lyres of Holy Sainctes, Prophets, Patriarchs, and others*; and afterwards, *The Holie Historie of King David, drawn into English meetre*; *A Ripping Up of the Pope's Furdel*.

MARBLE (*ante*). Unstratified statuary marble is white in consequence of the action to which it has been subjected during some stage of its metamorphism. It is well known that blue limestone when burned becomes white, and this discharge of color will take place even before the carbonic acid gas is expelled. Marbles may be nearly pure carbonate of lime, or they may contain a large proportion of carbonate of magnesia, in fact, may be metamorphic dolomites (q.v.). The finest statuary marble is worth from \$15 to \$20 per cubic foot. The Grecian and Italian marbles have been described in the preceding article. In the United States, good statuary marble has for several years been quarried at West Rutland, Vt., where a layer from 3 to 4 ft. thick is interstratified with 40 or 50 ft. of clouded marble. The finest of statuary marble is found at Pittsford, Vt., where there is a bed 20 ft. thick, from which blocks have been taken capable of

taking a very fine finish, in some respects perhaps superior to Carrara, although **not** working with quite equal facility. Some specimens have a faintish flesh tint, scarcely perceptible, which gives a very fine effect to busts, which, as is well known, are always improved by age, when made of marble too glaringly white. The greater portion of the marble in all quarries is more or less clouded, and most of the ancient temples are built of this kind. The Vermont marbles are of the age of the Trenton limestone, forming a part of the *colian limestone* of prof. Hitchcock, which in that locality is about 2,000 ft. thick. At West Rutland the quarry is from 40 to 60 ft. thick, at Sutherland Falls from 70 to 80, and at Pittsford 600 ft. thick. This marble belt extends n. and s. of Rutland co., through Vermont and Massachusetts, but it loses in quality in both directions. Towards the n. it is finer and harder, but less sound, and towards the s. it becomes coarser. Another belt of white marble extends along the flanks of the Alleghanies, through a part of Massachusetts, through New York and Maryland, and into Virginia beyond the Potomac river. This marble is a dolomite, and coarsely crystalline. It is quarried at various places in Westchester co., N. Y., and at Baltimore. At Canaan, Conn., and at Lee, Mass., and other places in New England, good building marble is quarried. Marble from Lee was used for the extension of the capitol at Washington. There are many varieties of colored marbles, and these are plain or variegated. There are plain black, red, blue, gray, and yellow marbles. A jet black marble was used by the ancients. A kind found in Italian ruins is called *Nero antico*, and is now used for a ground-work for mosaics. Black marbles occur at Derbyshire, England, Kilkenny, Ireland, and at Shoreham, Vt. At Glenn's Falls, N. Y., there is a black limestone, which is used alternately with white marble for tiles, which goes under the name of black marble. The colored marbles were largely used by the Romans and Etruscans for interior decoration. A gray marble much used by the Romans in architecture was called *cipolino*, and had much the appearance of gray granite. The columns of the temple of Jupiter Serapis were constructed of this stone. There are many localities of variegated marbles in the United States. A mottled lilac, chocolate, and white, known as Tennessee marble, is regarded with favor for mantels, tables, etc. Another of red, brown, and white is quarried at Burlington, Vt., but it is rather difficult to work on account of the silica it contains.

The opening of a marble quarry is usually expensive and attended with risk, as it is impossible to determine the quality of the stone before many feet thickness of rock is removed. From 10 to 30 ft. usually has to be taken off before perfectly sound disintegrated marble is reached. After a sufficient area of surface has been prepared by the removal of the imperfect stone, channeling machines, which may be either percussion or diamond drills, are set to work, and rectangularly crossed channels are cut to a desired depth, say from 5 to 7 feet. One of the blocks, called the key block, is then broken off at the base by wedging and lifted out with a crane. This gives ready access to the others, which are then drilled as circumstances may require, broken off by wedging, and removed to a saw-mill, where they are squared or sawed into slabs.

MARBLE, MANTON, b. Worcester, Mass., 1835; graduated at the Rochester university in 1855, and made his entrance into journalism in Boston, where he was connected with the *Journal and Traveller*. He removed to New York in 1858, and was employed during the next two years on the editorial staff of the *Evening Post*. In 1860 he united with others in founding the *World*, of which he eventually became sole proprietor. Under his management this paper gained great influence as an organ of the democratic party, and a vigorous exponent of the principles of free trade. Early in 1876 he retired from the *World*, and was closely connected with the political movements consequent to the presidential election of that year, which was in dispute between Samuel J. Tilden and Rutherford B. Hayes.

MARBLEHEAD (*ante*) is built upon an elevated and rocky peninsula, 4 m. in length, and 2 m. in width, projecting into Massachusetts bay. It was once a part of Salem, which it joins on the west. It is connected with Boston, Portland, etc., by a branch of the Eastern railroad. It has a deep and very convenient harbor, but the shipping interest, formerly large, has declined of late. It has two national banks, a savings bank, excellent schools, a newspaper, and well established and prosperous churches. Many of the quaint peculiarities of the first settlers from the Channel islands may still be observed in their descendants. The place presents many features of interest. It has always been distinguished for patriotism, furnishing 1000 men to the revolutionary army. In the war for the suppression of the rebellion it furnished 1440 men. A wide-spread fire destroyed a large part of its business section in 1877.

MARBLES, PLAYING, are little balls of marble or some other hard substance, used as playthings by children. They are manufactured in great quantities in Saxony for export to India, China, and the United States. A hard calcareous stone is used in Saxony. After this material has been broken into square blocks, about 150 of these blocks are thrown together into a mill. This mill is generally constructed of a stationary flat slab of stone, which has numerous concentric furrows upon its face. A block of oak of the same diameter, part of which rests upon the small stones, is made to revolve over this, while water flows upon the stone slab. The whole process requires but a quarter of an hour, and a single mill can manufacture 20,000 marbles a week. The mills at

Oberstein, on the Nahe, in Germany, manufacture marbles and agates especially for the American market.

MARBOIS, BARBÉ. See BARBÉ-MARBOIS, *ante*.

MARC ANTONIO. See RAIMONDI, *ante*.

MARCEAU, FRANÇOIS SÉVERIN DES GRAVIERS, 1769-96; a soldier and officer of the first French revolution, who joined the army as a private at the age of 16. In 1789 he participated actively in the capture of the Bastille; in 1792 was in the army of the Ardennes commanded by Lafayette. When the latter was forced to fly to avoid the guillotine of the Jacobins, Marceau persuaded the subordinate officers to remain, in a harangue closing with these words—"Our country, and not our generals, is to be defended." He continued to act faithfully in accordance with this sentiment. In 1793, at the age of 24, he was made gen. of division; and in all the campaigns—under Westernmen in the Vendées, under Kleber and Jourdan—he maintained a character for chivalric courage and devotion to the republic that made his early death a grief to all France.

MARCELLINUS, SAINT, b. Rome, 3d c.; d. 304; elected pope, 295. But little is known of his life or administration. There is an account, said to be fabulous, of a synod held at Sinuessa, in 303 or 304, during the Diocletian persecution; and Marcellinus is said to have confessed before this synod that, at the instance of Diocletian, he had offered incense to Vesta and Isis. The synod is said to have deposed Marcellinus, who, with many members of the synod, was put to death by Diocletian. The story is denied by Augustine and Theodoret, and is now not credited by either the Roman Catholics or the Protestant controversialists. Dr. Döllinger, in his work *Fables Respecting Popes in the Middle Ages*, attempts to show that the story of the deposition of Marcellinus is a fabrication of later times. The Roman church commemorates Marcellinus April 24.

MARCELLO, BENEDETTO, 1686-1739; b. Italy; son of Agostino Marcello, a Venetian senator. He studied music under Gasparini and Lotti, and produced his first valuable composition in 1716, a serenata in honor of the birth of the eldest son of the emperor Charles VI. The work to which he owes his fame appeared in 8 vols., 1724-26, under the name of *Estro Poetico-Armonico Parafrasi sopra i 50 primi Salini, Poesia di G. A. Grustiani, musica de B. Marcello, Patrizio Venezio*. The characteristics of his musical style are melody and simplicity, and a sound good taste.

MARCH, or MORA'WA, a river in Austria, rising in Moravia, flowing s.e., and then s.w., separating Hungary from Moravia, during a part of its course, and entering the Danube 8 m. w. of Presburg. It is navigable for 50 m. from the Danube.

MARCH, ALDEN, LL.D., 1795-1869; b. Mass.; studied medicine at Boston and at Brown university, where he received a degree in 1820. He practiced surgery for many years at Albany, N. Y. He was one of the founders of the city hospital and the medical college at Albany, professor of surgery in the latter, and president of the American medical association.

MARCH, AUSIAS, d. about 1462; a Valencian poet, the date of whose birth is unknown; a disciple but not an imitator of Petrarch, and among the first poets of the 15th century. His productions are remarkable for force and delicacy, as well as for loftiness of poetic conception. The early editions of his works, published in the 16th c., are now very rare; but a more complete edition, based upon them, was published at Barcelona in 1864.

MARCH, CHARLES W., 1815-64; b. Portsmouth, N. H.; graduated at Harvard college in 1837; practiced law in Portsmouth, and was a member of the legislature. Subsequently he removed to New York, and became a writer for the *Tribune* and the *Times*, and a correspondent of the *Boston Courier*. He was also for a time vice-consul at Cairo. He published *Daniel Webster and his Contemporaries, or Reminiscences of Congress; Sketches and Adventures in Madeira, Portugal, and the Andalusias of Spain*.

MARCH, FRANCIS ANDREW, LL.D., b. Mass., 1825; graduated at Amherst college in 1845, where he was tutor 1847-49; was admitted to the bar in New York in 1850; taught school at Fredericksburg, Va., 1852-55; appointed tutor in Lafayette college 1855; adjunct professor 1856, and in 1858 professor of the English language and comparative philology; received the degree of LL.D. from the college of New Jersey in 1870, and from Amherst in 1871; elected in 1873 president of the American philological association. His contributions to the transactions of that society and of the national educational association on philological subjects have been numerous. He has written also for the *Jahrbuch für Romanische und Englische Literatur* in Berlin. To the *Princeton Review* he has contributed articles on jurisprudence and psychology. He has published *A Method of Philological Study of the English Language; Parser and Analyzer for Beginners; Anglo-Saxon Grammar; An Introduction to Anglo-Saxon; Grammar, Reader, etc.* He has also edited a series of text-books of the Greek and Latin Christian writers, of which *Latin Hymns* and *Eusebius* have been issued. His rank among American philologists is very high.

MARCHAND, JOHN B., b. Penn., 1808; entered the U. S. navy in 1828; was made lieut. in 1840, commander in 1855, capt. in 1862, and commodore in 1866. He took part in the Seminole and Mexican wars, and in the war for the union, distinguishing

himself in the latter at the battle of Mobile bay, Aug. 5, 1864, where he commanded the *Lackawanna*. He retired in 1870.

MARCHES, THE, a central division of the Italian kingdom, comprising the provinces of Ancona, Ascoli-Piceno, Macerata, Pesaro, and Urbino; 3,751 sq.m.; pop. 915,419. The district is bounded on the e. by the Adriatic sea, and on the w. and n.w. by the Apennines. It is traversed by the rivers Potenza, Foglia, and one or two smaller streams. The name is derived from the Italian *marce*. The most important city is Ancona, a sea-port on the Adriatic, 132 m. n.e. of Rome, and of very ancient origin; pop. 45,741. Great part of the country is mountainous, but not unfertile. The chief articles of export are fruit, oil, nuts, grain, and wool. Pesaro, the capital of Pesaro and Urbino, n. of Ancona, pop. 20,000, is supposed to be of Pelasgian origin, and had a bishop as early as 251 A.D. It is a sea-port town, and has a very considerable commercial trade. The cathedrals of both Pesaro and Macerata are of great interest, and the whole district is noted for its public buildings, mosaics, and works of art. An account of the separate provinces will be found under the appropriate heads.

MARCHE'SI, POMPEO, 1790-1858; b. Italy; a sculptor, the pupil of Canova, and afterwards professor in the academy of fine arts. His masterpiece is "The Celebration of Good Friday," a marble group in the church of S. Carlo in Milan, and his other most noteworthy works are statues of the emperor Francis of Beccaria, and Bellini, and the Goethe statue in the public library of Frankfort.

MARCOMAN'NI, an ancient German people who, in the time of Caesar, lived along the banks of the Rhine, but afterwards, as appears from Tacitus and Strabo, settled in Bohemia, from which they expelled the Boii. Their king, Maroboduus, entered into an alliance with the tribes living around them to defend Germany against the Romans. The combined forces of the alliance numbered 70,000 men, and the emperor Tiberius signed a treaty with them in 6 A.D.; but the Marcomannic alliance was beaten 11 years later by the Cherusci and their allies, and in 19 the Gothic Catualda drove Maroboduus from the throne, and himself usurped the sovereignty. But he was soon overthrown, and the native dynasty established, under whose rule the Marcomanni extended their territory up to the Danube, till their encroachments alarmed the Romans, who attacked them in the time of Domitian. This war, which subsided for a time in the reigns of Trajan and Hadrian, broke out again under Marcus Aurelius, and was carried on with bitterness from 166 to 180, when it was ended by the peace of Commodus. The Marcomanni continued to make raids into the provinces of Noricum and Rhaetia, and in 270 invaded Italy as far as Ancona. From this time they are little heard of; and their identity finally disappears among the followers of Attila.

MARCO POLO. See POLO, *ante*.

MARCOU, JULES, b. in Salins, France, 1824; educated in Paris. He was companion and pupil of Germain, Thurmain, and Agassiz in their studies in the Alps in 1844-46, and in the latter year published his *Recherches Géologiques sur le Jura Salinois*. In 1847 he had charge of the classification paleontological of the museum. In 1849 he visited the United States and made geological explorations with Agassiz and others. In 1853-54 he was employed by the United States government in geological surveys in the Rocky mountains and California. In 1855 he became professor of geology at Zurich. In 1860 he returned to the United States to study fossiliferous formations. His works are numerous. Those on the geology of the Jura mountains were his first and last; while of treatises on the geology of the United States and Canada, and especially of the geologic peculiarities of the Rocky mountains and California, his are among the highest French authorities.

MARCUS THE HERESIARCH, a Gnostic philosopher of the 2d century. Neander thinks he was born in Palestine; Jerome, that he was an Egyptian. Irenæus and others of the fathers say that he was very licentious. Neander in his Church history has the following account of him: "Marcus set forth his system in a poem, in which he introduced the divine Æons discoursing in liturgical forms, and with gorgeous symbols of worship. After the fashion of the Jewish cabala, he discovered special mysteries in the numbers and positions of letters. The idea of a *logos tou ontos*, of a 'word' manifesting the hidden divine essence in the creation, was spread out by him into the most subtle details; the entire creation being in his view a continuous utterance of the ineffable."

MARCUS AURELIUS. See ANTONINUS, *ante*.

MARCY, MOUNT, one of the Adirondack mountains, in Keene, Essex co., N. Y., 5,467 ft. high. It was known to the Indians as *Tahawwas*, the "cloud-divider."

MARCY, ERASTUS E., b. at Greenwich, Mass., Dec. 9, 1815; graduated at Amherst in 1837, and at the Jefferson medical college in Philadelphia in 1840. He began the practice of medicine as an allopathist, but after a few years adopted the homeopathic doctrines, and settled in New York, where he met with great success. He wrote extensively on medical and chemical subjects, edited for many years the *Homeopathic Journal*; published *The Theory and Practice of Medicine*, and *Homeopathy vs. Allopathy*, which were translated into foreign languages and republished in Europe. He also edited Hahnemann's *Lesser Writings*.

MARCY, RANDOLPH B., b. Mass., about 1811; graduated at West Point in 1832, and was appointed lieut. 2d infantry in 1837; served in the war with Mexico, and was promoted to a captaincy; upon the conclusion of that war, was successively engaged in explorations in the Red river country, in operations against the Seminoles, and in the Utah expedition of 1857-58; was appointed paymaster, with the rank of major, in 1859, and inspector-gen., with the rank of col., in 1861; was chief of staff to gen. McClellan (his son-in-law) in West Virginia, on the peninsula, and in Maryland; and was made brig. gen. of volunteers Sept. 23, 1861. He has published *Exploration of the Red River*; *The Prairie Traveler*; and *Personal Recollections*. His residence is on Orange mountain, N. J.

MARCY, WILLIAM LEARNED, 1786-1857; b. Southbridge, Mass. In 1808, after graduating from Brown university, he taught school for a short time, but soon entered upon the practice of law at Troy, N. Y. At the opening of the war of 1812 he entered the volunteer service as a lieut., and Oct. 22, 1812, led the attack upon St. Regis, a Canadian post, stormed the block-house, and captured the first flag and prisoners taken on land in the war. At the close of the war he returned to Troy, where he was for some time editor of the *Budget*, an anti-federalist daily paper. After filling several minor offices, he was made an associate-justice of the New York supreme court in 1829; in 1831 he was elected senator of the United States by the democratic party, but resigned the office upon being chosen governor of New York in 1832. This position he held for three terms, but in 1838 was defeated by William H. Seward. He was appointed a commissioner on Mexican claims in the same year, and served in that capacity until 1842. In 1845 he became the secretary of war in Polk's cabinet. His ability in this position was severely tested by the Mexican war, and it was generally acknowledged that in the conduct of that conflict he displayed much energy and diplomatic adroitness. The last and most important public station in which he served was that of secretary of state in Pierce's administration, 1853-57. Among the foreign complications or treaties which demanded his action in this capacity were the Oregon question, the acquisition of Arizona and settling of the Mexican boundary, the Canadian reciprocity treaty, Commodore Perry's negotiations with Japan, the British fishery dispute, and the Ostend conference. In nearly all of these and other questions Marcy successfully defended the interests of his country; and in all he displayed the qualities of a trained statesman and accomplished diplomat. The most notable of his diplomatic correspondence was the series of letters in the case of Martin Koszta, a Hungarian, who, after declaring in New York his intention of becoming an American citizen, was detained by the Austrian power at Smyrna, and released by capt. Ingraham (q.v.) of the U. S. navy. Mr. Marcy's death occurred but a few months after the expiration of his term of office, at Ballston Spa, N. Y.

MARDI GRAS (literally fat Tuesday), the French designation for what is known as Shrove Tuesday in the calendar of the English church, the festival held upon the Tuesday preceding Ash Wednesday, the first day of Lent; with the exception of Mi-Carême or mid-Lent Thursday, the last of the prolonged festivities known as the carnival. It is most extensively celebrated in Rome and Paris. In the latter it has been the custom for many centuries to lead in procession a fat or prize ox (*bœuf gras*, whence *Mardi gras*), followed in a triumphal car by a child called the butchers' king. The entire day and night is spent in the wildest revelry, sometimes degenerating into unrestrained license. In the United States the only celebration of Mardi gras worthy of note is that of New Orleans, where the first display was given in 1857, and since the end of the war the observance has been carried out with great pomp and splendor. For the preceding week the gayety has been universal, and on Mardi gras the whole city is turned over to the rule of king Rex, who enters the gates on the previous day. On Tuesday the mimic monarch passes through the streets, escorted by his body-guard, the "mystic krewe of Comus," knights of Momus, and various military and visiting organizations. To him are confided the gates of the city; minor police regulations are suspended, and until the dawn of Ash Wednesday the air is filled with music; in every street are dense throngs of merry-makers, and the glare of illuminations. In the evening occurs the great street pageant of the mystic krewe of Comus, in which are displayed elaborate tableaux, placed on moving platforms and brilliantly illuminated. These represent noted scenes of history, poetry, or fiction, and are constructed at great expense and with artistic elegance. All the arrangements of the parades and accompanying balls are under the control of societies composed of the most noted professional and business men of the city. The observance is gaining ground also in Memphis, Tenn.

MARE ISLAND, in Solano co., Cal., off the bay of S. Pablo. It has a U. S. navy-yard, an arsenal, and a floating dock.

MAREN'CO, CARLO, 1800-43; b. Piedmont; studied law at Turin, where he graduated in 1818. He soon turned his attention to literature, and won a considerable reputation in 1828 by a drama called *Bondelmonte*. His posthumous works were published at Florence in 1856, as *Tragedie Inedite*. His most popular work, perhaps, is *La Fumiglia Foscari*.

MARENGO, a co. of w. Alabama, traversed by the Arkansas Midland railroad, and drained by the Tombigbee and Black Warrior rivers, the first forming the w. boundary;

975 sq.m.; pop. '70, 26,151—20,058 colored. The soil is extremely fertile, the staples being cotton, Indian corn, and sweet-potatoes; of cotton, 23,614 bales were raised in 1870; and of Indian corn, nearly 600,000 bushels. Butter is also a staple, and the county is well stocked with horses, cattle, and swine. Chief town, Linden.

MARENHOLZ-BULOW (BERTHA VON BULOW), Baroness, for many years an advocate and expounder of the principles of the kindergartner system of education for young children. She was intimately acquainted with Frederick Froebel, the founder of the system, obtained a thorough knowledge of it from him, and introduced the schools in nearly all the countries of Europe, and in England. In Berlin she sustained a normal school for three years, where teachers of kindergartens were educated, and has since been lecturer in the Dresden college of the same kind. She has printed several pamphlets and lectures on the subject, such as *The Kindergarten* and *The Child and its Being*.

MARESCH, J. A., 1709-94; a Bohemian by birth; but the greater part of his life was spent in the Russian service. He was a musician and made great improvements in the construction of the Russian horn, an unbent brass tube of conical shape. In 1755 he gave an exhibition before the imperial court, when a band of 37 men, furnished with horns varying from 7 feet to 1 foot in length, produced concerted pieces, each being carefully drilled to sound his own instrument at precisely the proper instant. For the skill and dexterity displayed in this rather ludicrous performance Maresch was richly rewarded by the empress Elizabeth.

MARET, HENRI LOUIS CHARLES, b. France, 1804. As a priest of the seminary of Sulpice, Paris, he distinguished himself in 1869 by joining a group of French bishops and theologians who pronounced squarely against the dogma of the infallibility of the pope, then just proclaimed officially from Rome. He wrote *Du Concile général*, a book which showed the absurdity of the claim from a standpoint within the church. This brought down upon him the anathemas of the pope's party and its organs, though the archbishops of Paris, Orleans, and Besançon were quite of the same opinion as Maret. But in 1871 Maret made a complete surrender, and declared to the pope that he "regretted everything which he had said in that work." He has been a large contributor to Roman Catholic reviews since 1836. His works on the relations of religion and philosophy are numerous.

MARET, HUGUES BERNARD. See BASSANO, *ante*.

MAREY, ÉTIENNE JULES, b. at Beaune, France, 1830; educated as a physician. In 1850 he went to Paris; in 1860 opened a school of experimental physiology and gave a free course of instruction the following year on the circulation of the blood and the diagnosis of the diseases of the heart and its vessels. In 1864 he founded a laboratory of physiology in the *rue de l'Ancienne Comédie* in Paris; in 1867 succeeded Flourens as assistant professor of natural history in the college of France; and subsequently has filled many positions of honor in Paris and elsewhere. The study of animal heat, of muscular and nervous action in connection with the movements of the heart, electrical phenomena, and the study of the effects of various poisons have been his specialties. His works are mostly contributions to medical magazines and reviews, and he has published the following volumes: *Recherches sur la Circulation du Sang à l'état sain et dans les Maladies*, 1859, 4to; *Physiologie Médicale de la Circulation du Sang*, 1863, 8vo; *Études Physiologiques sur les Caractères graphiques des Battements du Cœur, et des Mouvements Respiratoires*, 1865, 8vo; *Du Mouvement dans les Fonctions de la Vie*, 1867, 8vo; etc.

MARFORI, CARLOS, b. Italy, 1820; entered the Spanish civil service, and became a favorite of queen Isabella. He was an intimate friend of Narvaez, who originally introduced him to favor, and when Narvaez took office in 1866, Marfori became governor of Madrid and chief of the royal household. He was an object of hatred to the people, but remained in high favor with the queen, who refused to dismiss him, and, since the revolution by which she lost the crown, he has continued to be the chief of her household.

MARGARET (MARIE MARGUERITE THÉRÈSE JEANNE DE SAVOIE), queen of Italy, b. 1851; daughter of Ferdinand, prince of Savoy; was married April 23, 1868, to Humbert, hereditary prince of Savoy, prince royal, and prince of Piedmont. The latter succeeded his father, Victor Emmanuel I., as king of Italy, Jan. 9, 1878, and Margaret ascended the throne with him as queen of Italy. She is amiable, cultivated, and the idol of her people. With a cultured taste and exquisite tact, she has a rare sweetness of disposition, and is almost idolized by the Italian people.

MARGARET OF ANGOULÊME. See MARGUERITE DE VALOIS, *ante*.

MARGARET OF AUSTRIA, 1440-1530; b. in Brussels; daughter of Maximilian I., emperor of Austria, and of Mary of Burgundy; remarkable for her domestic misfortunes, and her wisdom as ruler and in diplomacy. While an infant she was by the treaty of Arras affianced to the dauphin of France, afterwards Charles VIII., but the contract was not filled. In 1495, by a treaty with Ferdinand and Isabella of Spain, she was again engaged to prince John of the Asturias, heir to the Spanish throne. On her way to

Spain to marry him, in the midst of a storm at sea, supposing they would be wrecked, she had the amiable pleasantry to write her own epitaph in these words:

Ci-git Margot, la gente demoiselle,
Qu'eut deux maris, et si morut pucelle.

But she married prince John nevertheless in 1497. He died the same year and she returned in 1499 to the Netherlands. In 1501 she married Philibert, duke of Savoy, who died without issue in 1504, after a happy married life with her. On the death of her brother Philip in 1506 her father the emperor made her regent of the Netherlands, and gave her charge of the education of her nephew, the future Charles V. of Germany, and his sister Mary. She assumed the government, exhibited administrative talent of a high order; assisted as plenipotentiary in the conference of Cambrai in 1508, and concluded the treaty with cardinal Amboise; brought the king of England to league against France in 1515; and negotiated with Louise of Savoy the peace of 1529, called the *Paix des Dames*. These were but the more showy events of her government. Her real title to most honorable mention in history is derived from the wisdom of the peaceful measures of her government, which brought the agriculture, the commerce, and the arts of the Netherlands to a high degree of prosperity. Margaret was the author of numerous unpublished poetical effusions. Her *Correspondence avec son Pere* was published in Paris in 1839 in two 8vo volumes.

MARGARET OF AUSTRIA, Duchess of Parma, Regent of the Netherlands; 1522-86; b. in Brussels; daughter of Charles V. without marriage by Marguerite van Gest of the Netherlands. In 1535 she married Alexander, duke of Florence, who died in 1537; and in 1538 married Octave Farnese, who became duke of Parma and of Piaisance. She was appointed by Philip II. in 1559 to govern the Netherlands, and followed the system of her great predecessor of the same name in softening the asperities of conflicting parties in the government, and moderating the execution of the terrible religious edicts of Philip II. The latter refusing to modify his persecutions under the inquisition, an insurrection broke out in 1566. While she manifested great energy in repressing it, she did all in her power to prevent the cruelties of Spanish religious intolerance towards those who took part in it. But no sooner was order re-established than Philip II. sent the duke of Alba with full power to complete the work in the spirit of the inquisition, and placed in his hands the powers with which she had been invested. She left the country to become the butchering-ground of religious persecution, and rejoined her husband in Italy, where she passed the remainder of her life. She was of masculine temperament, loved the chase, was a natural politician, gifted with a supple sagacity that suited itself to the occasion, and with views of statesmanship several centuries in advance of those of Spanish rulers.

MARGARITE, or PEARL MICA, called also corundellite, clingmanite, and pearl-glimmer, one of the hydrous silicates, belonging to the chlorite section. It crystallizes in the trimetric system, usually in intersecting or aggregated laminae; sometimes massive with scaly fracture. Analysis by J. Lawrence Smith of a specimen from the island of Naxos gave: silica, 30.02; alumina, 49.52; peroxide of iron, 1.65; lime, 10.82; magnesia, 0.48; potash and soda, 1.25; water, 5.55 per cent. The mineral occurs in chlorite rocks at Sterzing in the Tyrol; associated with emery in Asia Minor and in the Grecian archipelago, as discovered by Dr. Smith; with corundum at Village Green, Delaware co., Penn.; at Unionville, Chester co., Penn.; with corundum in Buncombe co., N. C.; and at Katherinenburg in the Ural mountains. A variety called *diphanite* contains protoxide of manganese, associated with iron.

MARGARITONE D'AREZZO, 1212-89; b. Arezzo, Italy. He executed many pictures both in fresco and distemper. Of the former, on wood and on copper, the most celebrated specimens were in the church of San Clemente, and a work executed for the nuns of Santa Margarita. But that which Vasari calls one of his masterpieces, "on which he placed his name," was a "San Francesco," painted for the convent of the friars de' Zoccoli at Sargiano, which still exists, with his own inscription, *Margrit. de Aretio pingebat*. He is said to have excelled more as a sculptor than as a painter. His masterpiece of art was a reclining statue in marble of pope Gregory X. in the cathedral of Arezzo, which is still in good preservation.

MARGRAVE. See MARQUIS, *ante*.

MARHEINEKE, PHILIPP KONRAD, 1780-1846, b. Germany, educated at Göttingen, and in 1806 appointed professor extraordinary of theology at Göttingen. In 1809 he was made ordinary professor of theology at Heidelberg; and in 1811 called to the same position at Berlin, and chosen pastor of the church of the Trinity there, where he became a colleague of Schleiermacher. His studies lay principally in the direction of Christian symbolism and dogmatics. To the former he devoted his *Christliche Symbolik* (1810-14), and his *Institutiones Symbolicae* (1830); to the latter, his *Grundlehren der Christlichen Dogmatik* (1819). The first edition of the latter work is based upon Schelling's philosophy; the second was revised in accordance with the philosophy of Hegel, of whom Marheineke was a follower, though he belonged to that small school of Hegelians who maintained that Hegel's philosophy was in accord with Christianity. His method of treatment is historical rather than dogmatic. His position was entirely independent, and he cannot be fairly

classed as a Lutheran, a supernaturalist, or a rationalist. To the mystics he was strongly opposed. The positive form of his theology may be found in his *Entwurf der Praktischen Theologie* (1837). He wrote many books besides those named, and was one of the editors of Hegel's collected works.

MARIANNE ISLES. See LADRONES, *ante*.

MARIAS, LAS TRES, three islands in the n. Pacific ocean, on the w. coast of Mexico, belonging to the state of Jalisco. They extend from n.w. to s.e. The largest is 15 m. in length and 8 in breadth; the next is 24 m. and the smallest 8 m. in circuit. They are all barren and uninhabited, but abound in wood, water, salt, and game, and were formerly visited by English and American whalers. Diego de Mendoza, who visited them in 1532, named them Isles de la Magdalena.

MARICO'PA, a co. in e. central Arizona, bounded by New Mexico on the e.; traversed by Salt river and bounded s. by the Gila; 14,500 sq.m.; pop. in '76 estimated at 3,500. In the valleys, wheat, barley, and Indian corn are raised; the e. portion is rugged and mountainous, and here are found considerable gold, silver, copper, and lead. Apache Indians roam over the country. Chief town, Phoenix.

MARICO'PAS. See COCO-MARICOPAS.

MARIE AMÉLIE DE BOURBON, Queen of the French, wife of king Louis Philippe, 1782-1866; b. in Sicily; daughter of Frederick IV., king of the Two Sicilies; reared and educated in Sicily, Naples, and Venice. Louis Philippe, duke of Orleans, while banished from France, met her, and they were married Nov. 25, 1809. She bore him a large family of children, most of whom have been eminent for talents and high character. On the accession of Louis XVIII. they returned to Paris, and resided in France or in England until the French revolution of 1830, when Lafayette and Lafitte selected her husband as the best available leader of the liberal monarchic party, and made him king. She exhibited a repugnance to the elevation, fearing to have her husband considered a trespasser on the rights, which she seemed to respect, of the elder branch of the Bourbons. As queen she was a model of abstention from political intrigues, of every domestic virtue, and of the highest influence over her husband to good ends. Her home virtues, sympathetic nature, and public charities, made her dear to the French people, and prolonged the duration of a reign the duplicity and selfishness of which was in marked contrast to the disinterested beneficence of her own life and influence. When Louis Philippe was dethroned in 1848, she bore the fall with dignity and calmness quite in contrast with the hurried fear of her royal consort. She joined him at Claremont, England, where, under the name of the comtesse de Neuilly, she passed the remainder of her life, and closed the eyes of her husband in 1850, after 40 years of noble companionship and mutual fidelity. In her last years she sought to bring about a reconciliation with the elder branch of the Bourbon family. Five sons and three daughters were the fruit of her marriage. The eldest son, the duke of Orleans, died in 1842; the eldest daughter, a promising sculptress, died in 1839; the other sons have the titles of duke de Nemours, prince de Joinville, duke d'Aumale, duke de Montpensier. The princess Louise became queen of Belgium, and the princess Clémentine married the prince of Saxe-Cobourg. M. Trognon has published a *Vie de Marie Amélie, Reine des Français*, 1871.

MA'RIES, a co. in s. central Missouri; drained by the Gasconade river and its affluents; 550 sq.m.; pop. '80, 7,323. The surface is broken and hilly, and only in the valleys is there much fertility. Indian corn is the chief product, 163,479 bushels being raised; 79,243 of wheat. The baser metals are found, but not in great abundance. Chief town, Vienna.

MARIETTA, the chief t. in Washington co., Ohio, on the e. bank of the Muskingum, at its union with the Ohio river; and the terminus of the Marietta and Cincinnati, and Marietta, Pittsburg, and Cleveland railroads; 150 m. from Columbus, 175 m. from Cleveland, and 300 m. from Cincinnati by way of the rivers; pop. '70, 5,218. The town was settled by New England emigrants in 1788, and is the oldest town in Ohio. The town is neatly laid out and handsomely embellished, and is the seat of Marietta college, which was chartered in 1835 and graduated its first class in 1838. Marietta is the center of an extensive business in petroleum, and is not distant from large deposits of coal and iron. There are 3 newspapers, 4 banks, a library, city hall, art gallery, and a very large number of refineries, factories, foundries, shops, and stores. The schools have long been noted for their superior qualities. A description of ancient mounds and works on the site of the city will be found in *Ancient Monuments of the Mississippi Valley*, by Squier and Davis. These have been in great measure destroyed by the building of the city, but traces of them still remain. The name Marietta was bestowed in honor of the French queen, Marie Antoinette.

MARIETTA COLLEGE, at Marietta, Washington co., O., was founded in 1835. The grounds occupy a pleasant square, and the college has four buildings. In 1878 it had 11 instructors and 80 students, G. W. Andrews, D.D., LL.D., president.

MARIETTE, AUGUSTE ÉDOUARD, b. at Boulogne-sur-Mer, 1821; became professor of grammar and design, and while engaged in these duties was drawn to the study of archæology. Attracting attention by an article published in 1847 on the history of his

native town, he was made assistant in the Egyptian museum of the Louvre, where he became so intelligent a disciple of the lore of Champollion in Egyptian hieroglyphics that he was sent to Egypt to gather Coptic manuscripts. While there he searched for the true site of Memphis, and by his familiarity with ancient authors, not only found the remains, but identified the temples, monuments, and tombs, by their descriptions. His discoveries were gratefully acknowledged by the French government, and increased means for investigation were placed in his hands by the duke de Luynes. His principal excavations for Memphis were made 4 m. from the spot where the archaeologists had previously searched, and resulted in uncovering an avenue of sphinxes, the temple of Serapis mentioned by Strabo, one of the most splendid structures of granite and alabaster of the ancient time, in which were found the sarcophagi of the bulls of Apis from the 19th dynasty to the time of the Romans. The labors of 1500 men under his hand brought to light 2,000 sphinxes and between 4,000 and 5,000 statues, and inscriptions and curiosities without number. Some of the statues were evidently of Grecian art. The explorations have served to confirm the fact of the greatness of the city of Memphis, its wealth and luxury. His excavations around the great sphinx of Gizeh brought to light many new facts and curiosities, which have been added to the collections of Egyptian curiosities in the Louvre. On his return to Paris in 1854 he was made conservator of the Egyptian museum. In 1858 he was again in Egypt following up his former searches with a large force of workmen, removing the sands that covered the temples of Elfou, Karnak, Médinet-Abou, etc. The viceroy of Egypt then made him conservator of the monuments of Egypt, with title of bey, and charged him with the formation of a collection of his precious discoveries at Boulak. In 1873 the institute of France awarded him the biennial prize of 20,000 francs. He is considered the most eminent of French *Egyptologues*. The following are some of his works: *Mère d'Apis*, 1856, 8vo, a light on the religion of the Egyptians; *Choix de Monuments et de dessins, découverts ou exécuté pendant le déblayement du Sérapéum de Memphis*, 1856, 4to; the *Sérapéum de Memphis*, in folio, with plates, 1857-64; *Aperçu de l'histoire d'Egypt*, 1864, 8vo; *Nouvelle table d'Abydos*, with plates, 1865, 8vo; *Fouilles exécutées en Egypt, en Nubie, et au Soudan, d'après les ordres du viceroy*, folio, with maps and plates, 1867; *Notice des principaux monuments du musée de Boulak*, 1870, 8vo; *Les Papyrus égyptiens du musée de Boulak*, folio, 1871; and *Album du musée de Boulak*, folio, illustrated by 40 superb photographic plates, representing 600 objects of Egyptian art, published in 1873. Upon his death the khedive took charge of the embalming of his body, and its deposit in an ancient sarcophagus.

MARIGLIANO, a t. of s. Italy, province of Caserta, not far from Nola. It has a castle and several churches, one of which has a good collection of pictures. Pop. '70, 5,182.

MARIGNANO. See MELEGNANO, *ante*.

MARIN', a co. in w. California, bounded w. by the Pacific, s. and e. by San Pablo bay, San Francisco bay, and the Golden Gate, the last separating it from the city of San Francisco; 500 sq.m.; pop. '80, 11,325. It is traversed by the North Pacific Coast railroad. The surface is marked by many hills, the highest of which, Table mountain, is 2,600 ft. high. It is the largest butter-producing county in the state, the amount in 1870 being over 2,000,000 pounds. Chief city, San Rafael.

MARINA, MALINTZIN, or MALINCHE, b. Mexico, probably in the last years of the 15th century. She was of a noble family in the province of Guazacoalcos, but when a child was sold in slavery to the Maya Indians. Soon after Cortez invaded Mexico she became his interpreter and his mistress. Their son, don Martino Cortez, attained to considerable importance in Mexico. She was afterwards married to Juan de Jaramillo, and was living as late as 1550.

MARINER'S COMPASS. See COMPASS, *ante*.

MARINES (*ante*). The introduction of marines into the American army took place by act of congress passed Nov. 10, 1775, by which two battalions of this arm were directed to be organized. Again, by act of July 11, 1798, "establishing and organizing a marine corps," this body became an established element in the naval force of the United States, liable to do duty either on board vessels of war at sea, or in forts or otherwise upon shore, as might be directed by the president. The commandant of the corps has the rank and pay of col. It has no regimental organization, however, but "may be formed into as many companies or detachments as the president may direct." When employed on naval service the marines are subject to the laws and regulations which govern the navy; but if engaged on shore duty they are amenable to the authority of the articles of war. The number of marines was fixed by the act of July, 1861, at 3,074 enlisted men, but this is practically lessened by the amount of the annual appropriations for the naval department. The United States marine corps consisted in 1880 of 86 officers and 1500 enlisted men.

MARINO. See SAN MARINO, *ante*.

MARION, a co. in n.w. Alabama, having the state line of Mississippi for its n.w. boundary; bounded on the n.e. by the Big Bear river; 900 sq.m.; pop. '80, 9,364—9,362 of American birth, 523 colored. It is drained by the Buttahatchie and Sipsey

creeks, branches of the Tennessee and Tombigbee rivers. Its surface is undulating, rising into hills in some sections containing beds of bituminous coal, a large proportion being covered with forests. Its agricultural products are tobacco, cotton, wool, sweet-potatoes, butter, honey in large quantities, sorghum, oats, corn, rye, and wheat. Cattle, sheep, and swine are raised. Seat of justice, Pikeville.

MARION, a co. in n. Arkansas, having the state line of Missouri for its n. boundary, the White river for its s.e., and the Buffalo Fork, one of the chief affluents of the White river, for a part of its s. border; 600 sq.m.; pop. '80, 7,907—7,895 American birth, 43 colored. It is drained by Crooked creek, flowing centrally through it into White river, and has a surface formed of the ridges of the Ozark mountains, partially covered with groves of chestnut, ash, hickory, etc. Its soil is adapted to the raising of fruit, live stock, every kind of grain, tobacco, cotton, sweet-potatoes, and sorghum. Honey is produced in large quantities, and the products of the dairy. Its mineral products are lead ore, variegated marble, and silurian limestone. Seat of justice, Yellville.

MARION, a co. in n. Florida, intersected by the Ocklawaha river, flowing into lake Griffin in the next county; has for its n.e. boundary lake George and the St. John's river, and has Orange lake in the extreme n., and smaller lakes, including Bryant and Ware in the e. section; 2,000 sq.m.; pop. '80, 13,046—12,961 of American birth, 8,305 colored. The Withlacoochee river forms part of its s.w. boundary. Extensive forests of good building timber grow along the river banks and surround the lakes; in other sections the level surface spreads out into fertile plains. Its agricultural products are tropical fruits, rice, oats, cotton, and corn, and its soil is specially adapted to the cultivation of sugar-cane and oranges. Carriages are manufactured. Seat of justice, Ocala.

MARION, a co. in w. Georgia, drained by the head waters of the Flint river and Kinchafoonee creek; 450 sq.m.; pop. '80, 8,598—8,595 of American birth, 4,307 colored. The Southwestern railroad crosses the extreme n.w. corner. Its surface, generally level, is covered to a great extent with hardwood timber, and the growth of swampy districts. Its soil produces fruit, oats, corn, tobacco, cotton, rye, wool, sweet potatoes, butter, honey, and sugar-cane. Much attention is paid to the raising of live-stock. Seat of justice, Buena Vista.

MARION, a s. central co. of Illinois, intersected by the Illinois Central and Ohio and Mississippi railroads; 576 sq.m.; pop. '80, 23,691. It is a prairie country, the productions being grain, cattle, and wool. Co. seat, Salem.

MARION, a central co. of Indiana, the converging point of 12 completed railroad lines (see INDIANAPOLIS); 420 sq.m.; pop. '80, 102,780. It possesses a level surface, except in the northern part. The soil is fertile, producing grain and hay in large quantities. Other productions are cattle and wool. Co. seat, Indianapolis.

MARION, a s. central co. of Iowa, watered by the Des Moines river, and intersected by the Des Moines Valley railroad. It has a varied surface and fertile soil. The productions are coal, iron, cattle, grain, and wool. Co. seat, Knoxville.

MARION, a co. in s.e. central Kansas; 950 sq.m.; pop. '80, 12,457—American, 8,603. The increase in population is most remarkable, the census of '70 giving but 768; the estimate of '75, 5,907; and of '78, 8,306. The county is drained by Cottonwood creek, which furnishes water-power. The surface is a rolling plain, and produces corn, wheat, and hay in great abundance. Stock-raising is a leading industry. Traversed by Atchison, Topeka and Santa Fe railroad. Chief town, Marion Center.

MARION, a central co. of Kentucky, watered by branches of Salt river, and intersected by a branch of the Louisville and Nashville railroad; 335 sq.m.; pop. '80, 14,691. The surface is varied in character, the soil is fertile, and grain, tobacco, and wool are produced in large quantities, while live stock is largely raised. Co. seat, Lebanon.

MARION, a co. in s.w. Mississippi, having the state line of Louisiana for its s.w. border, is intersected by the Pearl river in the w. section; about 1500 sq.m.; pop. '80, 6,901—6,899 of American birth, 2,450 colored. It is drained by Black and Red creeks, affluents of Leaf river. Its surface is generally level, partially tillable, and largely covered with timber. Its soil is sandy, and not remarkably productive; but there is a fair farming district near the Pearl river, where the products are tobacco, cotton, wool, sweet potatoes, butter, honey, sugar-cane, rice, oats, corn, and live stock. Seat of justice, Columbia.

MARION, a co. in n.e. Missouri; 460 sq.m.; pop. '80, 24,837—22,828 of American birth. The Mississippi river bounds it on the e., and it is also drained by the North and South rivers, and the n. and s. forks of the Fabius. It is traversed by the Hannibal and St. Joseph railroad. The surface is in part prairie and in part forest. Principal products: wheat, oats, hay, and Indian corn. Chief town, Palmyra.

MARION, a n. central co. of Ohio, intersected by the Atlantic and Great Western and Bee-line railroads; 360 sq.m.; pop. '80, 20,564. It is a level and fertile region, producing, cattle, grain, and wool, and manufacturing large quantities of lumber. Co. seat, Marion.

MARION, a co. in w. Oregon, bounded e. by the Cascade range, and w. by the Willamette river, by which, with its tributaries, it is drained; pop. '80, 14,576. It is traversed

by the Northern California railroad. The principal products are the cereals, and in 1870 there were raised 232,091 bushels of wheat, and 164,087 of oats. Sheep-breeding is carried on to some extent. The e. part of the county is hilly and mountainous, but contains considerable quantities of the precious metals, and of iron and coal. The chief town, Salem, is also the capital of the state.

MARION, a co. in e. South Carolina, having the Little Pedee river for its e. boundary, Lynch's river for its s. and s.w.: intersected in the w. section by the Great Pedee, and having the state line of North Carolina for its n.e. boundary; 1050 sq.m.; pop. '80, 34,107—34,042 of American birth, 18,228 colored. The Wilmington, Columbia and Augusta railroad crosses it centrally. Its surface is generally level and equally divided between forest and cultivated land. Its soil is a sandy loam, very fertile in some localities, producing fruit, tobacco, cotton, oats, corn, sweet potatoes, wool, wine, butter, sugar-cane, and large quantities of honey, rye, and wheat; other products are turpentine and tar. Cattle, sheep, and swine are raised. Seat of justice, Marion Court-House.

MARION, a co. in e. Tennessee, having the state line of Alabama for its s. boundary, is drained by the Tennessee river running at the foot of a range of the Cumberland mountains in the s.e. section, and the Sequatchie river emptying into it in the same region; 700 sq.m.; pop. '80, 10,911—10,712 of American birth, 1369 colored. It is traversed in the s. section by the Bridgeport, Alabama, to Victoria, Tennessee, division of the Nashville, Chattanooga and St. Louis railway; by the Sequatchie branch centrally to Victoria; and the Sewanee railroad crossing its n.w. corner. A large proportion of the surface, which along the rivers rises into steep high bluffs or buttes, is covered with forests or occasional groves, and the soil is productive. Corn, tobacco, cotton, fruit, wool, sweet potatoes, wine, and great quantities of honey are produced; other products are sorghum, maple sugar, every kind of grain, and live stock in large numbers. Bituminous coal, iron ore, and fire-clay are mined, and its principal industries are connected with their mining and manufacture. In the n.w. are medicinal springs impregnated with iron. Seat of justice, Jasper.

MARION, a co. in n.e. Texas, having the state line of Louisiana for its e. boundary, is drained by the navigable Caddo lake 20 m. in length, comprising a third of the e. section, and Big Cypress bayou, flowing through it from n.w. to the s.e. section; about 300 sq.m.; pop. '80, 10,985—10,745 of American birth, 7,229 colored. It is traversed centrally by the Jefferson division of the Texas and Pacific railroad, forming a junction with the East Line and Red River railroad at Jefferson. Its surface is uneven and well wooded with every kind of timber. Iron ore is among its mineral products, and mineral springs appear in some localities. Its soil has every element of fertility, especially the bottom lands, producing sweet potatoes, corn, live stock in general; great numbers of beef cattle and large quantities of cotton are raised, which are among its exports. Its manufactories include iron foundries and tanneries. Seat of justice, Jefferson.

MARION, a co. in n. West Virginia, intersected from s.w. to n.e. by the Monongahela river, and from n.w. to s.e. by the Baltimore and Ohio railroad; 330 sq.m.; pop. '80, 17,198—17,052 of American birth, 155 colored. The Monongahela river is navigable to Fairmont, and the co. is also drained by Trygart's Valley river. Its surface is uneven, and largely covered with forests. Its soil is very fertile, and its agricultural products are fruit, buckwheat, Indian corn, wool, flax, maple sugar, sorghum, oats, wheat, honey, live stock, and dairy products. Among its mineral products are bituminous coal, iron ore, and glass sand. Its manufactories are tanneries and lumber mills; also, thrashing-machines, flour, cigars, furniture, and machinery are manufactured, and coal is mined. Seat of justice, Fairmont.

MARION, the chief t. of Perry co., in w. central Alabama; pop. 2,646. It is 28 m. from Selma, on the Selma, Marion and Memphis railroad, and is the seat of the Howard Baptist college, founded in 1837; and also of the Marion and Judson seminaries for girls. There are two weekly papers, a bank, six churches, a few machine-shops; and the place has a good trade in cotton and corn with the surrounding country.

MARION, a t. in Ohio, near the center of Marion co., 85 m. n.e. of Dayton, 40 m. n. of Columbus. It is on the Atlantic and Great Western, Columbus and Toledo, and Cleveland, Columbus, Cincinnati and Indianapolis railroads. It has a court-house, 3 newspapers, banks, and 9 churches. There are grain-elevators, machine and carriage shops, and manufactories of chairs, sashes and blinds, chains, and rakes. Pop. of whole township, '70, 3,486.

MARION, FRANCIS, 1732-95; b. near Georgetown, S. C. He received a scanty education, and after a trial of seafaring life, in which he was wrecked and with difficulty rescued, engaged in farming. When the war with the Cherokee Indians arose, 1759, he immediately enlisted, and as a cavalry lieut. did good service in the campaigns of 1759-61. At the outbreak of the revolution, Marion was chosen a delegate to the South Carolina congress, but soon organized a company of volunteers in his neighborhood, and placed it under the command of col. William Moultrie. His first active service was in Charleston harbor, and later in the defense of fort Moultrie, June 28, 1776; and his gallant conduct there was rewarded by promotion to the rank of lieut.col. He was present at the siege of Charleston, 1780, having meanwhile been actively engaged in

various parts of Georgia and South Carolina. He was not in the city at the time of its surrender to gen. Clinton, owing to a severe accident which kept him from duty. After that disaster, Marion, then a col., raised several companies of volunteers among the country lads, or "cowboys" as the Tories called them, and with this force marched to the relief of gen. Gates, at that time in North Carolina. Though poorly armed, wretchedly dressed, and at first exposed to much ridicule on that account, Marion's brigade proved of the greatest value, through their intimate knowledge of localities and the native shrewdness which earned for their leader the *sobriquet* of "Swamp Fox." From the Pedee to the Santee river, and from the sea-coast back to the central counties, the imperfectly drilled, but sturdy and enthusiastic brigade seemed to cover all points at once, and caused no little embarrassment to the British forces. Among the most noted of the engagements in which Marion took part, may be named fort Mose, fort Wilson, Granby, Parker's ferry, and Eutaw. At the close of the war gen. Marion resumed his former occupation, and remained on his plantation till his death.

MARION HARLAND (*pseud.*). See TERHUNE, MARY VIRGINIA.

MARIOTTE'S INSTRUMENT, a J-shaped tube for demonstrating the law of Mariotte or Boyle, that the volume of a gas is inversely as the pressure upon it. The closed end of the J is only a few inches in length, while the open end is over 30 inches. Mercury being poured in till it is 30 in. higher in the long than in the short leg, it will be found that the air in the latter will occupy one-half its former space. If the column of mercury is 15 in. higher in the long leg, or half an atmosphere, making the pressure altogether $\frac{3}{2}$ of an atmosphere, the volume of air in the closed or short end will have $\frac{2}{3}$ of its former volume. See MARIOTTE, LAW OF, *ante*.

MARIPOSA, a co. in e. central California; 1440 sq.m.; pop. '80, 4,339—1839 being foreign. It is drained by the Merced and Mariposa branches of the San Joaquin river; on the n. and e. it is bounded by spurs of the Sierra Nevada. In the n.e. part are the far-famed Yosemite falls and some of the grandest and most picturesque scenery of the world. More to the s. are three collections of mammoth trees, containing more than 425 specimens, of which 134 are over 15 ft. in diameter. Many of them are from 275 to 375 ft. in height and from 25 to 34 ft. in diameter. It is supposed that the age of some of these trees is at least 2,500 years. The entire country is rich in gold mines and has been the scene of very extensive mining operations. The western part is level and fertile; in 1870 there were produced over 12,000 bushels of wheat and barley; wool and hay are also staples, and sheep breeding is carried on with great success. Chief town, Mariposa.

MARISCAL, IGNACIO, b. Mexico, 1829; called to the bar in 1849, and the next year made solicitor-general of Oaxaca. He was appointed judge of the Oaxaca court in 1859, and of the circuit court in 1860. He was secretary of legation at Washington from 1863 to 1866, and *chargé d'affaires* from 1867 to 1868. In the latter year, Juarez made him minister of justice; in 1869 he came to the United States as envoy extraordinary; and 1871-72 he was Mexican secretary of state. In 1872 he was once more appointed minister to this country, where he remained till the Diaz revolution in 1877.

MARIVAUX, PIERRE CARLET DE CHAMBLAIN DE, 1688-1763; b. Paris. He wrote many comedies, mostly for the Italian theater, but they are not now performed. The best are *Le jeu de l'Amour et du Hasard*, and *Les Fausses Confidences*. He wrote also the romances *La vie de Mariane*, and *Le Paysan Parvenu*. He was elected a member of the French academy in 1743.

MARK THE EVANGELIST (*ante*), called "John whose surname was Mark," and simply "John" in the earlier parts of the Acts, but in a subsequent passage and in the epistles "Mark" only; was, perhaps, a native of Jerusalem, as his mother lived there in the first days of the church; probably became a disciple under Peter's ministry, as Peter calls him his "son;" was a companion of Paul and Barnabas as far as Perga in Pamphylia, where he left them and returned to Jerusalem. When they were about to start the second time Barnabas was resolute in his purpose to take Mark with them, but Paul thought that it was not proper to have with them one who had once before left them in the midst of the work. This difference of opinion on a matter so vital produced a sharp contention between the zealous co-laborers and friends which resulted in a division of their work, Barnabas taking Mark with him to Cyprus, and Paul, with Silas as his companion, going by land through Syria and Cilicia and thence to the west. Nearly all the information concerning Mark which the Scriptures after this supply is found in Paul's epistles in which the apostle's references to the evangelist are highly honorable to both. Paul may have thought, on subsequent reflection, that he had been hasty in his judgment, or, as is more probable, Mark's steadfastness of character may have been increased by experience and especially by the remarkable dispute and separation to which his earlier conduct had given rise. One thing is certain, that Paul's notices of him are all nobly commendatory. To Philemon he ranks him with Luke among his fellow-laborers, words which from Paul mean much; to the Colossians he sends the salutation of Marcus's sister's son to Barnabas, adding the significant parenthesis—"touching whom ye received commandments, if he come unto you, receive him;" and to Timothy among the last recorded words before his martyrdom, after telling him to use diligence in coming

quickly unto him, he says, "Take Mark and bring him with yourself, for he is very profitable to me in the ministry." While the New Testament thus describes Mark as, during different portions of his life, a companion of Paul, Peter speaks of him as, probably at an intermediate time, present with him when he wrote his first epistle. By the earliest Christian writers after the apostolic age he is described as the companion of Peter rather than of Paul.

MARK, GOSPEL OF (*ante*), was received in the earliest times by the Christian churches as canonical, and as the work of Mark, under the guidance of the apostle Peter. The first written declaration to the effect, now extant, is recorded by Eusebius as quoted by Papias from John the presbyter, who probably was contemporary with John the apostle. "Mark having become Peter's interpreter wrote accurately all that he remembered, but did not record the words and deeds of Christ in order; for he was neither a hearer nor a follower of our Lord, but afterwards, as I said, became a follower of Peter, who used to adapt his instruction to the requirements of his hearers, but not as making a connected arrangement of our Lord's discourses; Mark, therefore, committed no error in writing down particulars as he remembered them, for he made one thing his object—to omit nothing of what he heard and to make no erroneous statement." Without committing ourselves to all the details of this statement, two facts we may consider as established by it: first, that Mark's gospel was in general use among the churches at the close of the 1st c.; and second, that in writing it he was in a greater or less degree under Peter's guidance, so that the second gospel may be regarded as having received his sanction to the same extent, at least, that the third was approved by Paul. While nearly all the facts which it records are given also in one or more of the other gospels, Mark's shorter gospel abounds in word-painting and precise descriptions which imply that at some stage of the narrative an eye-witness had furnished the writer with particulars which otherwise he could not have known. In one instance, while Matthew says Jesus "stretched forth his hand towards his disciples," Mark's description is, "Looking around on the circle of those who were seated about him." Where Matthew says, "He turned and said unto Peter," Mark's account is, "When he had turned about and looked on his disciples, he rebuked Peter." In the account which three evangelists give of the rich young man who came to Jesus, only Mark adds, "Jesus looking earnestly on him loved him." In narrating the healing of the withered hand on the Sabbath day, while Luke says, "Looking around on them all," Mark says, "Looking around on them with anger, being grieved for the hardness of their hearts." Matthew describes the demoniacs of Gadara as "exceeding fierce, so that no man could pass by the way;" Luke says of one of them that "often times the spirit had caught him, and he was kept bound with chains and in fetters, and he brake the bands and was driven by the demon into the wilderness;" Mark's account is the most picturesque of all, "No man could bind him, no, not with chains; because that he had been often bound with fetters and chains, and the chains had been plucked asunder by him, and the fetters broken in pieces; neither was any man strong enough to restrain him; and always, night and day, he was in the mountains, and in the tombs, crying and cutting himself with stones." Matthew and John were eye-witnesses, and had personal knowledge in other ways, of what they narrate; Luke's narrative in some parts gives information that he had probably obtained from Mary and from historical records; and when Mark relates so many particulars which imply the presence of an eye-witness from the beginning, the testimony of the early church is confirmed that that eye witness was Peter. In two instances, the probability rises almost to certainty: while Matthew gives Peter's confession in full, "Thou art the Christ, the son of the living God," followed by the benediction which it drew from Jesus, "Blessed art thou, Simon Barjona, for flesh and blood hath not revealed it unto thee, but my Father, who is in heaven," and by the remarkable promises as well as stern rebuke to which we can here only refer, Mark gives the confession only in the briefest form, "Thou art the Christ," and, omitting all intimation of benediction and promises, records the rebuke in its full force. Again, while the other gospels all speak in general terms of the cock-crowing in connection with Peter's denial, Mark specifies the crowing twice, both in the Savior's prediction and in the progress of the denial itself. In both these instances we seem warranted in saying that it was Peter, who dictated in the narrative these striking discriminations against himself.

Synopsis of Contents.—Omitting all notice of the birth and minority of Jesus and recording briefly the ministry of John the Baptist, Mark introduces Jesus at his baptism, followed by the descent of the Holy Spirit upon him, with the voice from heaven, and by the temptation in the wilderness. He then begins the account of his public ministry at the imprisonment of John; narrates the call of Simon and Andrew and of James and John; the mighty works wrought in Capernaum, followed by the circuit in Galilee; the forgiveness of the paralytic, attested by his restoration to health; the calling of Levi, followed by the entertainment at his house where many publicans and sinners were guests; the disciples in the corn-fields and the authority claimed by Jesus over the Sabbath day; the withered hand restored on the Sabbath; the multitudes drawn to Jesus from all parts of Palestine, Idumea, and Syria; the choice of the 12 apostles; the effort of the mother and brethren of Jesus to restrain him; the parable of the sower; the emblems of the lighted candle, of the seed sown, and of the grain of mustard seed; the

stilling of the storm on the lake; the legion of demons that, cast out of the man, entered into the swine; the woman healed, and the daughter of Jairus raised up; the preaching at Nazareth, and unbelief of the people there; the twelve instructed, empowered, and sent forth, two by two; the perplexity of Herod, explained by a full narrative of his having put John the Baptist to death; the return and report of the twelve; the feeding of 5,000 men with five loaves, followed by the walking on the sea, and by the multitude of the sick brought together from all the region around and healed; the traditions of the elders condemned as making void the commandments of God, and counter-instructions concerning true religion given; the Syrophenician mother, at first apparently rejected in order to manifest her faith, rewarded by finding her daughter restored; the deaf stammerer cured; the 4,000 fed with seven loaves; warning against hypocrisy under the emblem of leaven; a blind man led out of the town and healed; Peter's confession of faith, followed by his presumption and stern rebuke; the disciples warned concerning future trials; the transfiguration and instructions connected with it; the dumb, deaf, and desperate demon cast out; the death of the Son of man foretold; the ambition of the disciples reprov'd, and humility taught under the emblem of a child; John's narrow views corrected; offenses warned against under the emblems of a hand and foot to be cut off and of an eye to be plucked out; the unlawfulness of divorce declared; little children blessed; the rich inquirer concerning eternal life; the disciples amazed and afraid; the ambitious request of James and John; Bartimæus restored to sight; the entrance into Jerusalem; the fig-tree dried up, and instructions afterwards drawn from it; the temple cleansed, and the subsequent demand for authority silenced; the hypocritical question of the Pharisees and Herodians, the scoffing question of the Sadducees, the earnest question of the scribe, and the silencing question of Jesus; warning against the scribes; the offerings of rich men and of the poor widow compared; the destruction of the temple foretold, with the attending tribulations and the sudden coming of the Son of man; the conspiring of the chief priests and scribes; the broken box of ointment, and the prediction concerning it; the covenant of Judas with the chief priests; the passover kept, the supper instituted, the betrayal and Peter's denial foretold; the conflict in Gethsemane; the betrayal, apprehension, denial by Peter, condemnation by the council, and accusation before Pilate; Barabbas released, and Jesus scourged and crucified; scenes at the cross and at the tomb; resurrection, attested by appearances to the disciples; commission and promise to the apostles; the ascension of Jesus, followed by the successful preaching of the apostles everywhere in his name. The last 12 verses of the xvi. chapter are not found in two of the oldest and best manuscripts, and their genuineness has, therefore, been questioned; but their genuineness is claimed as fully proved by the quotations from them by Irenæus and other writers of the 2d c., whose testimony is much older than any manuscript extant.

MARK ANTONY. See ANTONIUS, *ante*.

MARKHAM, CLEMENTS ROBERT, b. England, 1830; educated at Westminster, and appointed a naval cadet in 1844. He was made lieut. in 1850, but left the navy the next year. He had been attached to the expedition in search of sir John Franklin in 1850-51, and from 1852 to 1854 he traveled in Peru and among the Andes. He was appointed a clerk to the board of control in 1855; introduced the cinchona plant into India in 1860; went to Ceylon and India in 1865, and in 1867 took charge of the geographical department of the India office. He went with the English expedition against Abyssinia as geographer in 1867, and was present at the capture of Magdala. He has published *Franklin's Footsteps*, 1852; *Cuzco and Lima*, 1856; *Travels in Peru and India*, 1862; *A Quichua Grammar and Dictionary*, 1863; *Spanish Irrigation*, 1867; *A History of the Abyssinian Expedition*, 1869; *A Life of the Great Lord Fairfax*, 1870; *Ollanta, a Quichua Drama*, 1871; *Memoir on the Indian Surveys*, 1871; general sketch of the *History of Persia*, 1873; *The Threshold of the Unknown Region*, 1874; *A Memoir of the Countess Chinchor*, 1875. He is secretary of the royal geographical society and editor of the *Geographical Magazine*.

MARKHAM, GERVASE, 1570-1655; b. Gotham, Nottinghamshire, England; was a capt. in the army of Charles I., and an author of great versatility, having employed his pen upon poetry, the drama, military tactics, angling, archery, etc. The most important of his works are *The Poem of Poems*; *Sir Richard de Grinville* (a tragedy); *The English Husbandman*; and *The Whole Art of Angling*.

MARKHAM, WILLIAM, a relative of William Penn; deputy-governor of Pennsylvania and Delaware in 1681-82; secretary of the province in 1684; deputy-governor of Delaware, 1691-93; deputy-governor of Pennsylvania under gov. Fletcher, 1693-95; and under William Penn, 1695-99.

MARLBOROUGH, a co. in n.e. South Carolina; 500 sq. m.; pop. '80, 20,598. The surface is generally level, and there are extensive forests. The chief productions are wheat, corn, oats, rice, and cotton. Co. seat, Bennettsville.

MARLBOROUGH, a t. in Middlesex co., Mass., 32 m. w. of Boston; pop. '80, 10,126. The Boston, Clinton and Fitchburg and a branch of the Fitchburg railroads pass through it. The principal business is the manufacture of boots and shoes, which is

extensive. There are 7 churches, 2 newspapers, a national and a savings bank, 3 hotels, a public library, a soldiers' monument, and a handsome town-hall.

MARMAROS, the name of a co. in n.e. Hungary, bounded on the n. by Galicia, e. by Galicia and Bukowina, and s. by Transylvania. It is the third county in size in Hungary; 3,998 sq. m.; pop. '70, 220,506. The population is made up of Wallachs, Jews, Magyars, Germans, and Ruthenians, the latter being fully half the whole number. The prevailing church is the united Greek. It is a mountainous region, being crossed and intersected by the Carpathian chain, many of whose peaks reach a great height. It is a rich mineral country, containing iron, lead, coal, and gold; there are also great salt mines, alabaster, marble, crystals, and diamonds. Mineral springs are frequent, the land is heavily timbered, chiefly with oak; and there are vast numbers of horses and sheep. The river Theiss waters this county, and its valley is fertile, and produces grain, fruits, and wine; elsewhere maize is the only important food product.

MARMIER, XAVIER, b. in Pontarlier, France, 1809. After journeys through Europe he translated Krummacher's stories from the German into French, and their success enabled him to make further travels and to become director of the *Revue Germanique*. In 1835 he was attached to the scientific voyage of the *Recherche* to the Arctic sea. During the voyage he acquired a knowledge of the Danish, Swedish, and Finnish languages; and on his return in 1839 was made professor of foreign literature at Rennes, and two years later was given a sinecure under the minister of public instruction. In 1842 he visited Russia; traversed the Indies, passing from the Danube to the Nile; in Syria in 1845; Algeria in 1846; North America in 1848; South America, 1849, etc.; everywhere studying the languages, idioms, and literature of the country. His works are numerous, and valued as a fund of information for students of the languages and manners of all the people among whom he has been—for he has written continuously as he traveled.

MARNIX, PHILIP VAN. See ALDEGONDE, SAINTE.

MAROS' RIVER, in the Austro-Hungarian empire, takes its rise in the Carpathian mountains of Transylvania, near Mt. Magos; flowing s.w. through Transylvania it enters Hungary, where it forms the n. boundary of the Banat or military frontiers. It empties into the Theiss; length 350 miles. On the left side its principal branches are the Nyarad, Kokel, Sebes, and Strehl; on the right, the Aranyos. In its upper portion it flows through a country rich in almost all the metals and minerals; its lower course is through fertile plains. It is navigable as far as Karlsburg, which is the principal city upon its banks.

MAROT, CLÉMENT, 1495-1544; b. in Cahors, France; studied law, found it repugnant, attracted the attention of Marguerite de Valois, and was made valet de chambre to Francis I. His father was court poet of Anne of Bretagne, and had also been valet de chambre of the same king. Marot's wit, poetic faculty, and charming manners secured the favor of the monarch, to whom he had dedicated a poem, the *Temple of Cupid*. At the battle of Pavia, in Italy, he was taken prisoner with Francis I. Returning to France not long after, he was imprisoned for supposed sympathy with the reformers in religion, suggested by his poem, *L'Enfer*. Released by his friend, the bishop of Chartres, his pen became more lively and caustic than before, as will be seen by the following verse from *L'Épître aux Dames de Paris*:

L'oisiveté des moines et cagots,
Je la dirais, mais je crains les fagots;
Et des abus dont l'église est fourée,
J'en parlerais, mais garde la bourée.

He was again imprisoned (1530), but obtained the favor of the king by a poem and was again released. Dreading further imprisonment, he sought refuge, in 1535, at the court of the queen of Navarre. In 1536 we find him at Ferrare, Italy, at the court of the duchesse Renée, where he formed a friendship with Calvin. Pope Paul III. ordered the duchess not to harbor those pestilent men. They left together and went to Venice. But he was no suitable companion for Calvin; Marot was simply a free-thinker. Their bond of friendship was hatred of the corruptions of the church. Calvin was building a faith hedged round about with the same dogmatism that he was combating. Marot would soon have lampooned that as caustically as he had the Roman church had Calvin not been a fellow-sufferer from persecution. Marot reappeared at court between 1538 and 1545, but was considered a dangerous heretic; yet he obtained employment in translating the Psalms of David from the Hebrew into French rhythm. The church condemned it, the king interdicted its publication; but it circulated nevertheless, and became one of the favorite studies of the Jansenists and Calvinists. The psalms were set to music by Goudimel, and sung in the meetings of the Protestants. Marot felt himself in danger in Paris, and joined Calvin in Geneva. But he found the austerities of the latter and his followers as repugnant to him as the weaknesses of the monks. Accused of playing backgammon and other frivolities, he found it more pleasant to leave the city than to reside in it, and sought refuge in Turin, where he died poor at the age of 50. La Harpe says of him: "The name of Marot marks the first epoch really notable in the history of our poetry." Another critic considers him remarkable chiefly as being the first to mold French to a really polished and melodious verse. His works form a singular

variety of tracts, songs, oallads, letters, cock-and-bull stories, madrigals, epigrams, epitaphs. He was the Tom Moore of his day—precise in the expression of his thought, and at once witty and graceful. The *Roman de la Rose*, *Frère Lubin*, *Frère Thibeaud*, *A Madame d'Alençon*, and the translations of the Psalms, are a few of his numerous works. His letters, *Épîtres*, are considered his finest work.

MARQUETRY (*ante*). See BUHL-WORK; INLAYING; MOSAIC; *ante*.

MARQUETTE, a co. in n. Michigan, intersected in the e. and n.e. by the Marquette, Houghton and Ontonagon railroad, and the Chicago and Northwestern railway; about 3,425 sq.m.; pop. '80, 25,393—11,868 of American birth, 154 colored. In the n.e. it forms part of the shore of lake Superior, and it is drained by numerous rivers and creeks, the Escanaba and Michigamme being the most important, and has lake Michigamme in the north. Pine forests cover a large extent of the surface, which is generally level. Its agricultural products are potatoes, butter, maple-sugar, and oats. Live stock is raised to some extent. Its mineral products are granite, iron ore (red oxide), lead, and limestone. Iron is found in great abundance, especially in Iron mountain, a ridge rising in the n.e. section to the height of 900 ft. above the level of lake Superior. Under the most favorable circumstances the yield is about 200,000 tons from this mine annually. Mining is the chief industry. Its manufactories consist of furnaces for the manufacture of pig-iron, mining powder, charcoal, and nitro-glycerine. There are lumber and lath works and machine shops. Seat of justice, Marquette.

MARQUETTE, a co. of s. central Wisconsin; 490 sq.m.; pop. '80, 8,907. Surface level and traversed by Fox river; soil fertile; corn, wheat, and wool are the staple products. Capital, Montello.

MARQUETTE, a city in Michigan, a shipping point for the coal-mines of Marquette co. and depot of supplies, by the s. shore of lake Superior; on a bluff 25 ft. in height; pop. '70, 5,242. It has an excellent harbor with convenient piers reaching far into the lake. It is 500 m. from Detroit by water, and 430 m. by rail from Chicago. It is 95 m. s.e. of Houghton, and is the e. terminus of the Marquette, Houghton and Ontonagon railroad, besides having communication with the large cities by steamer. It is lighted with gas, has several machine-shops, foundries, rolling-mills, and blast furnaces. It has a fine opera-house; 3 banks, with an aggregate capital of \$700,000, 2 of them national; 6 churches, 3 public halls, a park of forest trees, good schools with expensive edifices, a newspaper, a well-organized fire department, and a public library. Its water supply is brought from the lake by the Holly system. Roofing-slate and brown stone are quarried.

MARQUETTE, JACQUES, 1637-75, b. France; came to Canada as a Jesuit missionary in 1666, and after spending a year and a half in the valley of the Three Rivers learning the Indian languages of several of the Algonquin tribes, was assigned to the Mohawk mission; but before going his direction was changed, and he was sent to lake Superior, where he founded the mission of the *Sault Sainte Marie* in 1668. In 1669 he was sent to La Pointe, among the Ottawas and Hurons. The Sioux broke up the mission and dispersed the Hurons, whom he followed to Mackinaw and the mission St. Ignatius, on the north shore, where he built a chapel in 1671. The following year, writing with great show of piety and holy zeal to father Dablon, the head of the order in Montreal, he congratulated himself with what he had accomplished, and expressed himself "ready to seek new nations toward the South sea who are still unknown to us, and to teach them of our great God," etc. He had heard in many ways from the Indians of the existence of a great river to the westward, whose course was south, and which they called by its present name, Mississippi. It was imagined by the missionaries to empty into the South sea or Pacific. Marquette was something of a surveyor and ambitious of explorations. As early as 1669, while at La Pointe, he had this voyage of discovery in his mind. The sagacious governor Frontenac was made familiar with the rumors of the great river, and while the unfortunate La Salle had been turned from his projected expedition in the same direction, Louis Joliet was commissioned by the governor to undertake the tour of discovery, and Jacques Marquette was instructed by the Jesuits to accompany him. The shores of lakes Huron, Superior, and Michigan had already been explored and rudely mapped. May 17, 1673, they started from Mackinaw in two canoes, with five French *voyageurs*, and proceeded to Green bay of lake Michigan, where the mission of St. François Xavier had been established in 1669. They reached the mouth of Fox river, ascended it to the rapids, which they passed by portage, and then to its source, where they found a village of Miami Indians. There procuring two fresh Indian guides, they carried their canoes over to the waters of the *Mescousin* or Wisconsin river. Down this they floated by day, till on June 17 they entered the Mississippi. They descended it for 300 m. without seeing a human being, when they perceived a trail on the e. side of the river, and discovered a village of Illinois Indians, by whom they were well treated. When they reached the junction of the Missouri, Marquette described it as a river whose rapids were violent, and in whose muddy stream the floating timber trunks and branches of trees swept by with a force that inspired fear. He proceeded down to the mouth of the Ohio. Still further down they discovered iron on the river bank, and were now greatly tormented by mosquitoes. They met Indians on

this part of the river who had guns, hatchets, knives, hoes, and glass bottles for their gunpowder; and were informed that they were within ten days' journey of the sea; that they purchased goods that came from people of the east; and that those people dressed like themselves, and had images and beads. They found numerous and more civilized Indians as they proceeded, and when arrived at the mouth of the Arkansas, were received with much comfort and state in the Indian villages. Having arrived at lat. 34°, they feared to go further lest they should fall into the hands of the Spaniards, and on July 17 started to ascend the river. On reaching the Illinois they ascended it, instead of going farther up to the mouth of the Wisconsin. From the head of this stream they are supposed to have made the portage to lake Michigan at or near Chicago; and were greatly impressed with the beauty and fertility of the country. After an absence of 4 months, and a voyage in canoes of 2,550 m., they were back at Green bay the latter part of September, where Marquette remained, and Joliet proceeded to report to the governor at Montreal. On Oct. 25, 1674, Marquette with a party, in ten canoes, set out to form a mission settlement in Illinois. From the head of Green bay, at Sturgeon cove, they carried their canoes through the forest to the shore of lake Michigan, thence skirted the western shore of the lake to the Chicago river, where, enfeebled by sickness, he stopped, built a log hut, and spent the winter. On Mar. 30, 1675, their hut was inundated by a freshet in the river, and they gathered their necessaries to pursue the journey to the Illinois, which they made by the portage to the Des Plaines river, and finally arrived at the Indian town of Kaskaskia, where he says "he was received like an angel from heaven." After Easter he returned to lake Michigan, on which he embarked with two companions and explored in their canoe the eastern shore of lake Michigan. They had proceeded as far as a small stream, south of the one which now bears his name, when his strength failed, and he died peacefully, and was buried. The party continued their journey to Michilimackinac, or Mackinaw. In 1676 his bones were dug up by a party of Ottawas, who washed, dried, and boxed them carefully in birch bark, and forming a procession of 30 canoes, bore them with funereal chants to the mission of St. Ignace, north of Mackinaw, where the relics were received with solemn ceremonies, and buried beneath the floor of the chapel of the mission.

MARQUEZ, LEONARDO, b. Mexico, 1818; prominent during the war between Mexico and the United States, 1845-48, and in 1847 was active in the defense of the valley of Mexico. In 1849 the successful revolutionary movement of Santa Anna was supported by Marquez, who headed a rising in Guanajuato. In reward for this service, Santa Anna, on receiving the presidency, promoted him to high command. Alvarez and Comonfort found a bitter and persistent antagonist in Marquez, who conducted against them a fierce guerilla warfare during 1856-57, and who, during the next three years, sustained Miramon and Zuloaga in their conflict with Juarez. This conflict he continued to wage independently after Miramon had retired from the field, and until the occurrence of the French intervention in 1861. He supported Maximilian in his progress through Mexico, and on the latter assuming the crown of the new empire, Marquez was appointed minister of the new government to Constantinople. From this mission he returned in 1866, and witnessed the downfall of the empire, partaking of the last struggles of Maximilian, and commanding the defense of the city of Mexico against the operations of Porfirio Diaz. On the surrender of the capital he fled to Havana, and has since made that city his residence. The career of Marquez, though brave and adventurous, was stained by unnecessary cruelty. In 1859 he gained the bloody victory of Tacubaya, and signalized his success by the execution, not only of prisoners of war, but of non-combatants, an act which gave him the significant name of "the tiger of Tacubaya." Other instances of a similar sanguinary temper occur in the execution, by his orders, of the prime minister Ocampo, and generals Valle and Degollado, who were his prisoners. In view of these facts, the established government of Mexico, after the downfall of Maximilian, set a price upon the head of Marquez; and on the occasion of the general amnesty granted in 1870, he was expressly excluded by name. It is due to him to state that he has made published statements denying the charges of cruelty which had been brought against him.

MARRIAGE (*ante*). The common statement that marriage is a contract is open to many objections. It is argued that the stipulations are *in futuro*, and that there can be no conditions or limitations attached, and that, while the law of contract supposes all parties to stand on an equal footing, the law of marriage, like that of other *status*, presupposes that they are not equal, and has even been called the "law of unequals." Undoubtedly the best statement is that the term marriage is used in law, as, indeed, in common language, in two entirely distinct senses: first, to denote the contract itself; and, secondly, to designate the resulting condition or *status*. The relations of the parties to one another in this *status*, their mutual rights, duties, and restraints, and, more especially, the powers of the wife as to tenure and disposition of property, are treated under the heads of HUSBAND and WIFE; and DIVORCE, *ante*. The question now in hand is, What constitutes a legal marriage in the United States? In the first place, it may be stated, generally, that the law on this subject is, in this country, far more liberal in relation to ceremonies and formalities than in any other civilized land, with the single exception of Scotland. The statutes of the various states, it is true, differ greatly, and

in some instances the discrepancies amount to positive contradiction; but the general tendency is in the direction indicated. In defense of this tendency it may be said that public policy favors marriage, that liberal construction often protects an innocent but ignorant party from the consequences of imposition, and that it tends to discourage vice. On the other hand, it might be urged that to accept very slight evidence as proof of a valid marriage is to encourage thoughtless and improvident union, to open a door for the legal sanction of vicious entanglements, and that the most sacred engagement of life cannot be surrounded by too many safeguards.

To constitute a valid marriage there must first be legal capacity; which, in most states, is held to exist in the case of males at the age of 14, and of females at 12. There must next be free consent and mutual agreement. But not even in Scotland does consent alone complete the contract. The wording of the law is: "*consensus et concubitus*," in other words, there must be cohabitation. Yet the *essence* of the contract is consent, and many rulings indicate that in the United States subsequent cohabitation is not a requisite. The consent must be *in verba presenti*, in words of the present and not the future. Here arises a remarkable discrepancy in the method by which the courts in different states have arrived at the same result—the enforcement of loosely constructed marriages. Some few, following the law of Scotland, have declared that an agreement *in futuro* followed by cohabitation was sufficient, while most maintain the opposite doctrine. Thus, in a case where the parties agreed to live as if man and wife, and to allow their fellow-boarders to suppose them so, and that after the occurrence of certain events they should in fact be married, it has been held in one state that this was a good contract, while in another state the opposite was held in a very similar state of facts. But besides consent, the statutes of all the states impose regulations as to license, religious ceremony, consent of parents if under a certain age, and others, many and various. Are these requirements of such a nature as to render a contract entered into without compliance with their provisions void or voidable? In the earlier cases great reluctance was shown to admit that such a contract could stand. In *Milford vs. Worcester*, 7 Metcalf, 48, it was held by the courts of Massachusetts that a marriage without statutory compliance was absolutely void. So Parsons, in his work on contracts, says that he knows of no case in which a mere agreement to marry, with no formality and no compliance with any law or usage regulating marriage, is actually permitted to give both parties and their children all the rights, and lay them under all the obligations and liabilities, civil and criminal, of a legal marriage. But he reluctantly admits that recent decisions tend very strongly that way. And in not very recent cases it has been held, both in Pennsylvania and in New Hampshire, that a marriage contract in words of the present is valid without forms or witnesses; while the Illinois supreme court has gone so far as to say that, where there has been cohabitation, the presumption of marriage exists until overthrown by direct evidence—a very doubtful doctrine. See also *Fenton vs. Reed*, 4 Johnson, 54. In New York the rulings have been very strong in support of recognizing such marriages, and it may be regarded as now well-established law that the non-compliance with statutory provisions does not render a *bona-fide* contract void, and can be dealt with only by inflicting the prescribed penalties of fine or imprisonment on the negligent parties; though in certain cases it may render the marriage *voidable*. It is not necessary that both parties should know that the agreement to be legal man and wife is good in law. The actual agreement—which of course must be to assume the legal relations of man and wife, not simply to live together—is enough; and if, while one of the parties is acting in good faith, the other believes that he can legally renounce the contract, he is not to benefit by his treacherous conduct. As to whether such a contract as has been described has actually been completed, the question is purely one of evidence; and it is admitted on all sides in this country that circumstantial evidence, such as cohabitation, general repute, reception as man and wife by the family and by neighbors and friends, may be admitted, and their weight passed upon by the jury.

It is in general true that the *lex loci* applies to marriage contracts; that is, if a marriage is good where it is contracted, it is good anywhere; and it has even been held that where, in Massachusetts, a white man and negro woman went to Rhode Island for the ceremony, in order to avoid a prohibitory statute of the first state, their marriage could not be treated as void in Massachusetts. But suppose the laws of Utah allow polygamy, is it to be recognized as valid elsewhere? or, if the people of one state regard as incestuous what is allowed in another, are the people of the first to have no protection from the presence of what they consider a disgraceful example? Probably the courts in such cases would hold that *lex loci* may be overruled by public policy, but the decisions on the point are not yet clear. A peculiar class of cases of recent date, in this country, arises from the laws of Southern states in regard to the condition and marriage of colored persons, and especially their intermarriage with whites. It is held in *Frusner vs. The State*, 3 Texas Court of Appeals, 263, that such intermarriage is illegal; in North Carolina a marriage of the kind made in another state, but without intent to avoid the law, was ruled good; and by similar reasoning it has been decided that, in a case where the intent to avoid the law was obvious, the contract was void. But the main point of interest as to these cases is whether such laws are constitutional, or whether they conflict with the 15th amendment. On this point, we believe, there is as yet no decision by the supreme court.

Here, as in England, the common-law principles as to contracts in restraint of mar-

riage and marriage-brokerage contracts are in full force. Thus, a bond by a widow not to marry again is absolutely void; and, in general, the law regards with extreme disfavor any undertakings or contracts as regards marriage which might have been the result of coercion or fraud.

MARRUCINI, an ancient people in central Italy, on a narrow tract of land along the right bank of the river Aternus. Their territory extended from the Apennines to the Adriatic; between the Vestini on the n. and the Frentani on the s.; and between the Peligni and the Adriatic on the e. and west. They were an independent nation, said to be descended from the Sabines, and generally were in alliance with their neighbors, the Marsi and Peligni. They entered into alliance with the Romans in 304 B.C., but rebelled at the beginning of the social war. Their only place of importance was Teste, now Chieti, on the right bank of the Aternus, now the Pescara.

MARS, ANNE FRANÇOISE HYPOLYTE BOUTET, 1779-1847; b. France; called Made-moiselle; one of the most illustrious French actresses, daughter of an excellent actor named Monvel and an actress Mlle. Mars-Boutet, both of Paris. At the age of 14 she appeared at the comédie Française in personations of ingenuous childhood, under the care of Mlle. Contat, the prima donna of the theater. These simple parts continued for many years to be her rôle, and it was not till she had reached her 24th year that her first grand success was obtained in *L'Abbé de l'Épée* in the part of the deaf and dumb girl. From that time forward, through a period of nearly 40 years, she acted through the whole range of dramatic art with a fullness of talent that never failed to present with delicacy, power, and good taste each new character in which she appeared. Beginning her career as a child in the stormy days of the revolution, a mother at 16 achieving her first great triumphs in the early days of the first empire, rendering more admirably than her predecessors the heroines of the classic drama of the great poets of France before the revolution, and finally taking up one after another the works of succeeding generations of dramatists and poets, Victor Hugo, Alfred de Vigny, Scribe, Dumas, and breathing into their heroines the glow of her own talents. She prolonged her apparent youth, beauty, and power almost to her dying day. The habit of playing ingenuous characters in her youth, and many years of practice in simple rôles before assuming leading parts, seem to have ripened those delicate and superb coquetties which beauty and genius combined find latitude to exhibit on the stage. Beautiful in face, imposing in form, suave in manner, tasteful in dress, with a voice melodiously modulated at will to suit every emotion, she was in appearance the ideal actress. Her *liaison* with the emperor Napoleon seems to have made a real impression on her heart, for on the accession of Louis XVIII. she refused to use the customary ejaculation of *vive le roi*, and had some trouble with the theatrical manager about it; but the king covered the misunderstanding by settling upon her 30,000 livres. She was not married, and her private life was that of the corrupt society of her time. Although a generous giver, she left at her death an estate of 800,000 francs.

MARSHNER, HEINRICH, 1795-1861; b. Germany; a self-educated composer. His opera, *Der Kyffhäuserberg*, appeared in 1816; *Heinrich IV. und Ansbach*, in 1819; *Der Vampyr*, his best work, in 1828. In the meantime he had become director of the opera at Dresden, a post which he gave up in 1830, when he was appointed chapel-master to the king of Hanover. There he composed *Das Schloss am Aetna* and *Hans Heiling*, and set to music Mosenthal's *Goldsmith of Ulm*.

MARSDEN, SAMUEL, 1764-1838; b. England; educated at the free grammar-school at Hull. He began life as a tradesman at Leeds. He joined the Methodists, and belonged to them for some time; but, desiring to obtain a collegiate education, he entered the English church; studied at St. Joseph's college, Cambridge; and before taking his degree was offered the chaplaincy to New South Wales. He was ordained in 1793, and in 1794 sailed as chaplain to the new penal colony at Paramatta, near Sydney, Australia. Seven years previously, the first convict ship had been sent out, yet up to this time religious instruction was unknown. For soldiers, settlers, convicts, and all, Marsden was the only Christian teacher. Receiving a grant of land and 13 convicts to till it as part payment for his services, he made it the model farm in New South Wales, and devoted the profits from it to the support of schools and missions. A mutinous spirit showing itself among the convicts, Marsden sailed for England, mainly for the purpose of obtaining permission for the friends of the convicts to accompany them to the penal colony. This was refused, but his proposal that the convicts should be taught trades was well received. Having had some intercourse with the Maoris of New Zealand, and found them to be superior to the Australian native, he endeavored, while in England, to obtain funds for the formation of a mission among them, and missionaries to accompany him. He endeavored to obtain help from the church missionary society. No clergyman could be found to undertake the mission, but two laymen, William Hall and John King, consented to go as pioneers, and accompanied Marsden to Australia, Aug., 1809. They were soon followed by Thomas Kendall. Marsden having vainly endeavored to get aid in fitting out a missionary ship to transfer these lay missionaries to their field of labor, purchased a small vessel at his own expense, which was named the *Active*. He sailed with them, and was kindly welcomed by the natives. He employed these teachers in laying the foundations of a Christian civilization. He frequently visited them, and in his fourth visit took with him the rev. Henry Williams, who afterwards became bishop

of a Maori district. He procured reinforcements for the mission from the English and Wesleyan churches, induced the natives to adopt a fixed form of government, provided for the preparation of a grammar and dictionary of the Maori language, and lived to see the people Christianized. In his 72d year of age he made his seventh and last visit, and was greeted everywhere as the friend of the Maori. He found Sunday generally observed, polygamy and cannibalism fast diminishing, and the people in many respects greatly improved.

MARSDEN, WILLIAM, D.C.L., son of a merchant; 1754-1836; b. Dublin. In 1771 he was appointed to the civil service of the East India company at Bencoolen, Sumatra; became secretary to the government, and acquired a thorough knowledge of the Malay language; returned to England in 1779 with a pension, and devoted himself to literature, and published a *History of Sumatra*. In 1795 he was made second secretary, and afterwards first secretary, to the admiralty. In 1807 resigning, he retired to private life and study. In 1812 he published his *Grammar and Dictionary of the Malay Language*, and in 1817 a translation of *Marco Polo*. In 1831 he voluntarily resigned his pension. In 1834 he presented to the British museum his rich collection of oriental coins, and his library of books and oriental MSS. to King's college. He published also *Numismata Orientalia* (eastern coins); *Catalogue of Dictionaries, Vocabularies, Grammars, and Alphabets*; and some papers on the language, manners, and antiquities of the east in the *Philosophical Transactions* and the *Archæologia*.

MARSH, ANNE CALDWELL, 1798-1874; b. at Lindley Wood, Staffordshire, England. She was the author of more than 20 novels and tales, of which *Emilia Wyndham*, *Mt. Sorel*, and *Mordaunt House* are usually thought the best. Most of her works were written anonymously, and it is not certain how many are rightly attributed to her. Her best work is free from sensationalism, and of delicate conception, but lacks power; several of the stories have been republished in this country. During the latter part of her life she assumed the name of Marsh-Caldwell, and succeeded to the estate of Lindley Wood.

MARSH, DEXTER, 1806-53; b. Mass.; although possessed of little education, and occupying the humble position of a day-laborer, was a keen observer, and interested in natural history. While engaged in his work he often came across many fossil footprints on the large stone slabs which he quarried for paving-stones. Of these he made an extensive collection from many parts of the Connecticut valley, New Hampshire, and New Jersey. Many of his specimens were sold during his life, and are now distributed among various colleges and museums; but among those retained by him, and sold for over \$2,500 after his death, were more than 500 slabs covered with footprints and marks of rain, and about 200 fossil fishes.

MARSH, HERBERT, D.D., 1757-1839; b. London. Having received his education and a fellowship at St. John's college, Cambridge, graduating with great distinction, he removed to Germany in 1783, and resided several years at Göttingen and Leipsic, where he published, in German, several articles in defense of the policy of England in the continental wars. For this service he was rewarded with a pension on the recommendation of Mr. Pitt. In 1806 he received the title of D.D. by royal mandate. On the French invasion of Germany he returned to England, and in 1807 was appointed lady Margaret's professor of divinity at Cambridge. He abandoned the custom of lecturing in Latin, and lectured only in English. In 1816 he was made bishop of Landaff, and in 1819 of Peterborough. Bishop Marsh was learned in theology, politics, Greek, Latin, German, and oriental literature. He was the first who brought into England the biblical criticism of Germany. His principal works are a translation into English of Michaelis's *Introduction to the New Testament*; *Authenticity of the Five Books of Moses considered*; *The National Religion the Foundation of National Education*; *Lectures on the Criticism and Interpretation of the Bible*; *Lectures on the Authenticity and Credibility of the New Testament and on the Authority of the Old Testament*. Bishop Marsh was a strong opponent of both Calvinists and Roman Catholics.

MARSH, JAMES, D.D., 1794-1844; b. Hartford, Vt.; graduated at Dartmouth in 1817, and entered the Andover theological seminary, but suspended his studies there after the first year to return to Dartmouth as tutor. Returning to the seminary in 1820, he graduated in 1822. His studies at Andover extended beyond the ordinary limits, and included not only the modern languages, but the then new field of German erudition, and the works of Plato. He was also an appreciative reader of Wordsworth and Coleridge, and an article contributed by him in his senior year to the *North American Review* on ancient and modern poetry attracted wide attention. He also began at the same time a translation from the German of Bellermin's work on the geography of the Scriptures. His intense application to study injured his health, on which account, before his graduation, he visited the southern states. Though strongly disinclined to become a preacher, he was ordained as a Congregational minister in 1824. From 1824 to 1826 he was professor of languages in Hampden Sidney college, Va., giving a portion of his time, however, to the adjacent theological school. Here he began his translation of Herder's *Spirit of Hebrew Poetry*, the first parts of which appeared in the *Christian Repository* at Princeton. In 1826 he was appointed president of the university of Vermont, and it was at his suggestion that some important changes were made in the courses of study in that institution. Finding the duties of president irksome, he resigned the post, and

accepted instead the professorship of moral and intellectual philosophy, which he held to the close of his life. In 1829 he contributed to the *Christian Spectator* a review of Stuart's *Commentary on Hebrews*, which contained the germ of his most characteristic writings. At this period he became acquainted with the writings of Coleridge, in which he found much to confirm and strengthen his own convictions. His introduction to the first American edition of the *Aids to Reflection* won him a high reputation at home and abroad. It was reproduced in London, and in 1853 prefixed to a complete American edition of Coleridge's works. In 1830 he published a volume of selections from the old English divines, including Howe's *Blessedness of the Righteous*, and Bates's *Four Last Things*. In 1833 he completed his translation of Herder's *Spirit of Hebrew Poetry*. He contemplated several important works, including a system of logic and a treatise on psychology, which he did not live to complete. His *Remains*, with a *Memoir* by prof. Joseph Torrey, appeared in 1843. He died in Colchester, Vt.

MARSH, ORINIEL CHARLES, b. Lockport, N. Y., 1831; educated at Phillips academy, Andover, Mass., and at Yale college, where he graduated in 1860; and then took a two years' course of study in the Sheffield scientific school. He was then engaged in the same line of study at the German universities of Heidelberg, Breslau, and Berlin. On his return to this country he was, in 1866, appointed professor of paleontology at Yale, and still holds this position as well as the curatorship of the geological and kindred scientific collections. He is also one of the trustees of the fund of \$150,000 given by the late George Peabody to the college "to found and maintain a museum of natural history, and especially in the departments of zoology, geology, and mineralogy," and was most actively concerned in the planning and erection of the massive and fire-proof Peabody museum, which is to form but one wing of the completed building when the funds for building and maintenance have sufficiently accumulated. From 1868 to the present time he has been constantly engaged in the discovery and classification of fossils of extinct animals of the Rocky mountain region, leading many expeditions in person, and directing the operations of others. In these explorations his parties have penetrated into the wildest solitudes under considerable personal hardships and dangers, and have obtained extensive collections of immense scientific value, including fossil animals hitherto unknown, to the number of several hundred. Among the new orders discovered are the *dinocerata*, a six-horned animal of the eocene period; the *pteroductyls*, or flying lizards; the *ichthyornithes*, a cretaceous bird furnished with teeth; and a great variety of bats, monkeys, and marsupials. In many papers published at intervals up to the present time (1881) he has described these and many other species, and is constantly adding to the collection by discovery and purchase. Within a few years the description by prof. Marsh of certain fossil bones found by him and, though belonging to the equine race, differing from the modern horse in several particulars, and markedly in the construction of the foot and number of toes, has added to the evidences of the doctrine of natural selection and of the evolution of species, exhibiting, as is claimed, the gradual divergence by a species from the primary form, and the result therefrom of what have hitherto been regarded as orders of entirely distinct creation. Prof. Huxley has repeatedly claimed that these discoveries of Marsh completely supply the proof alleged to be wanting by the opponents of the doctrine of the "survival of the fittest."

Prof. Marsh has written many articles on scientific subjects which have appeared in almost all the scientific journals. He is a fellow of the royal geographical society and a member of many other associations at home and abroad.

MARSHAL (*ante*), in the United States, is used in three significations: 1. To denote the ministerial officer of the United States courts, there being one appointed to each judicial district. The duties of this officer resemble those of a sheriff in the state courts; he opens and closes the sessions of the district and circuit courts, serves warrants, and with his deputies enforces the execution of the internal revenue and other U. S. statutes. 2. To denote a leader or director of ceremonies, festivities, or processions. 3. In many states of the south and west the marshal is the head of the municipal police force, and is to be distinguished from the officers of the county called sheriffs, and from the officers of the justice courts called constables. In a few northern cities, formerly, the name was applied with doubtful propriety to special police officers.

MARSHALL, a co. in n.e. Alabama, watered by branches of the Tennessee river and by the Black Warrior; 450 sq. m.; pop. '80, 14,585. It has a rugged surface, broken by mountain ridges, a part of the Appalachian chain. The soil is generally fertile, productions being wheat, Indian corn, sweet potatoes, tobacco, butter, and cotton. Co. seat, Warrenton.

MARSHALL, a co. in n. Illinois, intersected centrally by the Illinois river, navigable to Lacon, and entering lake Peoria in the extreme s.w.; also, by the Peoria and Bureau Valley division of the Chicago, Rock Island and Pacific railroad; the Chicago to Illinois river branch of the Chicago and Alton, forming a junction with the Dwight to Washington and Lacon branch. The Illinois Central forms its e. border, with a junction at Wenona; 360 sq. m.; pop. '80, 15,036—12,610 of American birth, 37 colored. It is drained by Sandy creek, along whose banks and those of the Illinois river the soil is very fertile, and the surface is for the most part level prairie. Its products are: grain, tobacco, wool, sweet potatoes, wine, dairy products, sorghum, honey, and corn. At

Henry, in the n. section, is a combination bridge, lock, and dam of the Illinois Improvement. It has manufactures of carriages, woolen goods, pumps, agricultural implements, cooperage, tin, copper, and sheet-iron ware; among its manufactories are foundries, machine shops, and distilleries. Bituminous coal is found and easily mined. Seat of justice, Lacon.

MARSHALL, a co. in n. Indiana, intersected by the Pittsburg, Fort Wayne and Chicago, and the Indianapolis, Peru and Chicago railroads, forming a junction at Plymouth; also by the Baltimore and Ohio railroad; 450 sq.m.; pop. '80, 23,416—22,111 of American birth, 9 colored. It is drained in the s.e. by the head waters of the Tippecanoe river, the Yellow river, and other branches of the Kankakee. Its surface is generally level, and diversified by groves of sugar maple and openings of hard-wood trees. Its soil is fertile and adapted to the raising of live stock, and the cultivation of fruit and vegetables, every kind of grain, wool, dairy products, honey, maple sugar, sorghum, and hops. It has manufactories of furniture, flour, lumber, hubs, wagons, carriages, and wooden goods; also breweries. Iron ore is found. Seat of justice, Plymouth.

MARSHALL, a co. in n. Iowa, intersected by the Central railway of Iowa, and the Cedar Rapids and Missouri river division of the Chicago and Northwestern railway, forming a junction at Marshalltown; 576 sq.m.; pop. '80, 23,752—20,680 of American birth, 123 colored. It is drained by the head waters of the Iowa river and other small streams. Its surface is mostly undulating prairie, with a moderate growth of timber, in which oak and ash predominate. It has a fertile soil, particularly in the valley of the Iowa, producing immense quantities of wheat, every variety of grain, fruit, live stock in great numbers, wine, tobacco, hops, wool, sweet potatoes, dairy products, honey in large quantities, and sorghum. Its mineral deposits are coal, limestone, and marble. Its leading industries are the quarrying of marble, and the manufacture of soap, wagons, flour, oil, saddlery, and harness. It has machine shops, steam saw-mills for sawing stone, iron foundries, and breweries. Seat of justice, Marshalltown.

MARSHALL, a co. in n. Kansas; 900 sq.m.; pop. '80, 16,135—13,000 of American birth. It borders on Nebraska, and is traversed by the Big Blue and Little Blue rivers, and by the St. Joseph and Denver City and the Central Branch Union Pacific railroads. The surface is in great part a very fertile prairie, on which all the cereals are raised in large quantities. Chief city, Marysville.

MARSHALL, a co. in w. Kentucky, having the Tennessee river for its e. and n. boundary near its confluence with the Ohio, and drained by Clark's river and other tributaries; 400 sq.m.; pop. '80, 9,647—9,619 of American birth, 440 colored. It is intersected in the extreme n. by the Paducah and Elizabethtown railroad. Its surface is uneven and two-thirds covered with timber. Its soil is adapted to the raising of live stock, fruit, every variety of grain, wool, sweet potatoes, wine, sorghum, maple sugar, and hops. Among its manufactures are wagons, tobacco, and flour. Seat of justice, Benton.

MARSHALL, a co. in n. Mississippi, on the border of Tennessee, watered by the Coldwater, Tippah, and Tallahatchie rivers; 750 sq.m.; pop. '80, 29,333. It is intersected by the Mississippi Central railroad. The surface is varied, generally undulating, and the soil fertile. Productions are Indian corn, sweet potatoes, wheat, butter, and cotton. Co. seat, Holly Springs.

MARSHALL, a co. in central Tennessee, watered by the Duck river; 350 sq.m.; pop. '80, 19,260; the surface is generally level and the soil fertile. Productions are lumber, wool, grain, cattle, and live stock. Co. seat, Lewisburg.

MARSHALL, a co. in the s. part of that portion of West Virginia known as the "Panhandle," having the Ohio river on the w. and Pennsylvania on the e.; intersected by the Baltimore and Ohio railroad; 280 sq.m.; pop. '80, 18,840. A level country along the shore of the river, farther back it is undulating, the soil in all instances being fertile and under generally high cultivation. The productions are live stock, grain, and wool; and this county is rich in coal measures, not as yet extensively worked. Co. seat, Moundsville.

MARSHALL, the chief city of Calhoun co., Mich., and part of the township of the same name; pop. '70, 4,623. It is on the Kalamazoo river, and reached by the Michigan Central railroad; 108 m. w. of Detroit and 36 e. of Kalamazoo. The city was incorporated in 1859. Among the public buildings are a court-house, high school, and very fine union school, three banks, many churches, a paper mill, etc. The place is largely engaged in manufacturing flour, for which there are several great mills.

MARSHALL, HUMPHREY, 1812-72; b. Ky.; graduated at West Point in 1832, and resigned from the army the following year. He studied law and practiced in Louisville. On the outbreak of the Mexican war he joined the command of gen. Taylor, and at the battle of Buena Vista he behaved with great gallantry, leading a memorable charge of the Kentucky volunteer cavalry. At the close of the war he retired to a farm in Kentucky, but in 1849 was elected to congress; and in 1852 represented the United States in China. From 1855 to 1859 he was again in congress, and in 1860 espoused the confederate cause, and received a general's commission in that army. He was defeated by gen.

Garfield at Prestonbury, Jan. 7, 1862; but afterwards fought under the command of gen. Kirby Smith. He was a member of the confederate congress during the latter part of the war, having resigned his commission. The latter part of his life was passed in Louisville in the conduct of a lucrative law practice.

MARSHALL, JOHN, LL.D., 1755-1835; b. Va.; educated at Westmoreland school and by a private tutor. He began the study of law in 1773, but before he was called to the bar the revolution broke out, and he soon joined the *Culpeper minutemen*, a Virginia company, and participated in the battle of Great Bridge, where he led a flanking party. The next year he was transferred to the 11th Virginia regiment as a lieutenant, and in 1777 he was made a captain. He was with the American army in the New Jersey campaign, and was present at Brandywine, Germantown, and Monmouth. He resigned from the army in 1781, and began to practice law, whose study he had resumed at William and Mary college in the winter of 1779 when he was waiting in Virginia to take command of a new force, which was never raised. He was admitted to practice in 1780. His success at the bar was immediate and marked. In 1782 he was returned to the house of delegates from Fauquier co., and the same year became a member of the executive council. In 1787 he was a member of the legislature from Henrico co., to which he had removed. The next year he sat in the Virginia convention called to ratify or reject the constitution framed at Philadelphia. He and James Madison were the foremost supporters of the new instrument, which they succeeded in carrying through the convention. In 1789, 1790, 1791, Marshall served again in the delegates, this time as member for Richmond. He acted with the federalist party, to which the majority of Virginians were opposed; but he succeeded in retaining the confidence of his political opponents. In 1792 he resumed his law practice, but in 1795 was again elected to the delegates. Jay's treaty had been most bitterly attacked in Virginia, but was defended by Marshall with such ability that the constitutional points, on which the house of delegates had wished to condemn it, were given up; and the delegates passed a simple resolution of disapproval. Marshall, who, for the sake of his practice, which was now grown very large, had refused from Washington the posts of attorney-gen. and minister to France, consented, after considerable demurrer, to go to Paris in 1797 as envoy extraordinary with gen. Pinckney and Elbridge Gerry. The object of their mission was to induce the French directory to remove the restrictions which it had laid upon American commerce. The negotiations proved fruitless, but the ambassadors were warmly received on their return to America in 1798. A public address was presented to Marshall, and members of both houses of congress united in giving him a public dinner. In 1799, at the urgent solicitation of Washington, he permitted the use of his name as federalist candidate for congress, and was elected by a narrow majority. While the canvass was going on, he had been offered, and had refused, a seat upon the U. S. supreme court. In congress he became the leader of the federal party, which was fast losing popular confidence. He did not support, without reserve, the alien and sedition laws, against which Virginia had resolved to protect herself by force, if necessary. In all other measures he supported the administration. His most notable speech was in the case of Jonathan Robbins, who had murdered a man on a British frigate and escaped to this country. President Adams, in accordance with a provision in Jay's treaty, gave Robbins up to the British government, which claimed him as its subject. Mr. Livingston, for the republicans, introduced into congress a resolution censuring the president for his action. Marshall defended Adams in a powerful speech, showing that the surrender of Robbins was an act distinctly within the political power of the executive. In May, 1800, he was appointed by president Adams secretary of war, but before accepting he was made secretary of state. His instructions to Rufus King, our minister to England, in regard to several important controversies then pending between this country and England, form one of the ablest of American state papers. In 1801 he was nominated and unanimously confirmed chief-justice of the United States. His decisions in the supreme court raised it to a point of public respect and professional reputation which certainly have not since been surpassed. Chief-Justice Marshall's decisions, particularly in the departments of constitutional and commercial law, are of the highest authority. Many judges, more familiar with the books, have sat upon the supreme bench; but none with such an acute and penetrating judicial intellect, or so dispassionate in the hearing of causes. "He was," said one of his admirers, "conscience made flesh, reason incarnate." Between the years 1804 and 1807 appeared his *Life of Washington*, in 5 volumes, founded upon study of original documents then unprinted, and defending the political career of Washington and the measures of his administration from the attacks which both—and, it must be added, Washington's private life—had suffered from the republicans. The book received much adverse criticism from the English reviewers, on account of the alleged impurity of its English and its undue size. It was abbreviated and published in 2 volumes in 1832. Justice Story published, in 1839, a selection from Marshall's decisions and other papers under the name of *The Writings of John Marshall upon the Federal Constitution*. "His judgments," says justice Story, "for power of thought, beauty of illustration, variety of learning, and elegant demonstration are justly numbered among the highest reaches of the human mind." In person and manner Marshall was not graceful, but his amiable and genial character made him a pleasant companion and gained warm friends.

MARSHALL, THOMAS FRANCIS, 1801-64; b. Frankfort, Ky.; nephew of the great chief-justice John. At an early age he began practice in the legal profession, and in 1831 opened an office at Louisville. Here he became noted as an eloquent speaker in political campaigns, and was made judge of the Louisville circuit of the superior court. From 1841 to 1843 he served in congress, where he distinguished himself by his eloquence and ready wit. He was a man of brilliant abilities and attractive personal qualities; but, unfortunately, the highest development of his powers was rendered impossible by habits of dissipation. A collection of his speeches and essays has been published by W. L. Barre.

MARSHALL, WILLIAM CALDER, b. Edinburgh, 1813; studied sculpture at the royal academy, under the instruction of Chantrey and Bailey, where he won a gold medal and traveling scholarship, and from 1836 to 1838 continued his studies in Rome. From the time of his return to London, 1839, he contributed to almost every annual art exhibition some graceful piece of statuary. His work may be classed in three divisions: idealistic statuary, historical sculpture, and decoration. Among his numerous productions in the first class may be mentioned: "The Creation of Adam" (1842); "Christ Blessing Little Children" (1844); "Paul and Virginia" (1845); "Sabrina" (1846), perhaps the most popular of all his figures; "The First Whisper of Love;" and "The Dancing Girl Reposing," which last work gained the art-union prize of £500. In historical figures he has modeled the bronze statue of sir Robert Peel at Manchester, one of Dr. Jenner; and in the Westminster palace, busts of Chaucer, lord Clarendon, and lord Somers. In decoration, he has been extensively engaged in the ornamentation of the new houses of parliament and the Wellington chapel in St. Paul's cathedral. He was also the designer of the Wellington monument. The style of all his productions is marked by simplicity and refinement, and the conception of his statuettes is especially delicate and poetical.

MARSHALLTOWN, capital of Marshall co., Iowa; at the intersection of the Chicago and Northwestern with the Central railroad of Iowa; pop. '70, 4,384. It is the center of a prosperous agricultural region, has 7 churches, 3 banks, 3 public schools, a public library, 3 newspapers, 2 flouring-mills, 2 breweries, 3 grain elevators, and a foundry.

MARSHALSEA PRISON, in Southwark, London, was built in the 12th century. It was for a long time a king's bench prison, but finally used for confining poor debtors. It was broken open by the Gordon rioters in 1780. It was abolished, with the ancient Marshalsea courts, in 1849, and has since been torn down.

MARSH-GAS, or METHANE, also called light carbureted hydrogen and fire-damp. It is generated in muddy bottoms of pools in which water-plants grow. When the mud is stirred bubbles of gas rise to the surface, and are easily collected in an inverted bottle. This gas is a mixture of methane and carbonic acid; the latter is readily removed by agitation with limewater or caustic potash or soda. It is also often disengaged in coal mines, sometimes issuing in streams from fissures, having been pent up in the coal. It is one of the products of the distillation of coal in making illuminating gas. Its formula is CH_4 , and it contains 12 parts of carbon and 4 parts of hydrogen, by weight. Its specific gravity is 0.559, having a little more than half the density of common air. Containing as it does, a large proportion of hydrogen, it forms, when mixed with oxygen, a highly explosive compound. Mixed with common air it is also very explosive, as the terrible accidents in coal mines have unhappily demonstrated. It was a long time before marsh gas could be obtained pure by artificial means. That contained in coal gas and made by passing alcohol through a red-hot tube is exceedingly difficult of separation. Dumas, however, has discovered a method by which it can be readily procured in large quantities, perfectly pure. A mixture is made of 40 parts of crystallized acetate of soda, 40 parts of caustic soda, and 60 parts of quicklime in powder, strongly heated in a retort. The gas is given off in great abundance and may be collected over water. The reaction is as follows: $\text{NaC}_2\text{H}_3\text{O}_2 + \text{NaHO} = \text{CH}_4 + \text{Na}_2\text{CO}_3$. It will be perceived that lime does not enter as an element in this calculation. It is introduced only to prevent the soda from attacking the glass of the retort.

MARSH-HAWK. See HARRIER, *ante*.

MARSH-HEN. See RAIL, *ante*.

MARSHMAN, JOSHUA, D.D., an English missionary; 1767-1837; b. at Westbury-Leigh, Wiltshire. While young he showed a great passion for reading. His parents being poor, he was obliged to struggle for an education. In 1794 he became master of a school in Bristol, and at the same time a student of Bristol academy, where he studied Latin, Greek, Hebrew, and Syriac. Deciding to devote his life to the missionary work, he was sent in 1799 by the Baptist missionary society to India to join Carey and his colleagues. The East India company being opposed to missions in their territories, they established their mission at Serampore, a town on the Hoogley, 16 m. above Calcutta, containing a mixed population of Danes, Dutch, English, and natives. Finding soon after his arrival the support granted by the society insufficient for the wants of the colony, he, with the aid of his wife, opened two boarding-schools for European children, and shortly after a school for natives, which was soon filled, and the income from this enterprise, supplemented by that of Carey as instructor in the government college at Fort William, enabled them soon to make their mission independent of home support. But

their course did not meet the approval of the committee of the society, who censured without sufficient information, pinched the mission, and dictated their management. Some American subscribers remonstrated "against any part of their contributions for training young men to the ministry being employed in teaching science." This disagreement continued for some time, threatening the success of the enterprise. In 1822 Dr. Marshman sent his son John to England to endeavor to restore amicable relations, which mission being unsuccessful, he himself in 1826 returned in order to confer with the society. But he failed in his object, and the matter ended in a separation of the Serampore mission from the society. He returned in 1829 to Serampore. He had experienced a great affliction in the death from cholera of Mr. Ward, with whom he and Dr. Carey had labored for 23 years. The treatment of the parent society deeply distressed him. He became very melancholy, wandering about unable even to write a letter. In 1834 Dr. Carey died, leaving him alone. In 1836 his daughter, who had married the famous Christian soldier, gen. Henry Havelock, barely escaped with her life from her bungalow, which had caught fire, losing one of her three children in the flames. Soon after Dr. Marshman died from complete nervous prostration. A few days before his death arrangements were made in London for the reunion of the Serampore mission with the parent society, and the retention of Dr. Marshman as superintendent. In addition to his special missionary duties, Dr. Marshman gave himself with great zeal to the study of the Bengalee, Sanskrit, and Chinese languages, which he mastered. He translated into Chinese the book of Genesis, the four Gospels, the epistles of Paul to the Romans and Corinthians. He published also a *Dissertation on the Characters and Sounds of the Chinese Language; The Works of Confucius, containing the Original Text, with a Translation; Clavis Sinica; Elements of Chinese Grammar, with a Preliminary Dissertation on the Characters and Colloquial Medium of the Chinese*. He assisted Dr. Carey in preparing a Sanskrit grammar and a Bengalee and English dictionary. Rammohun Roy having assailed the miracles of Christ in a work entitled *The Precepts of Jesus the Guide to Peace*, Dr. Marshman replied in a series of articles in the *Friend of India* (a periodical issued by the Serampore missionaries), subsequently republished in a volume under the title of *A Defense of the Deity and Atonement of Jesus Christ*. Rammohun Roy replied to this.

MARSII-ROSEMARY, the *statice limonium*, variety *Caroliniana*, natural order *plumbaginaceæ*, a perennial plant, growing in salt marshes along the sea-shore of southern and western Europe. The variety *Caroliniana* is an American plant, growing in similar localities on the American coast. Extending northward along the coast of British America, it passes into *S. bahusiensis*. Marsh-rosemary has a tuft of spatulate-oblong, bristly-pointed, one-ribbed leaves, developing in August, a much-branched, paniced scape, from 1 to 2 ft. high, bearing numerous small lavender-colored flowers; fruit, a one-seeded utricle, contained in the base of the calyx. The root is used in medicine. Edward Parrish found it to contain about 12 per cent of tannin, a trace of volatile oil, a little caoutchouc-like matter, gum, and other vegetable principles. Chlorides of sodium and magnesium, and sulphates, are among the inorganic constituents. Marsh-rosemary was long ago a celebrated remedy for hemorrhages, and in recent times has been used for gargles in ulcerated sore throats.

MARSI, an ancient tribe of central Italy, inhabiting the district around the lake Fucinus (*Lago di Celano*). Their origin, like that of other Italian tribes, is involved in obscurity and fiction. They were probably of Sabine origin. They are worthy of notice chiefly on account of their warlike spirit. The Marsians were at one time allies of the Romans, but, in 308 B.C., they revolted and joined the Samnites. After being subdued they again, 301 B.C., shook off the alliance of Rome, but were beaten in the field, and lost several of their fortresses. From this time they continued the firm allies of Rome, contributing by their valor to her triumphs until the Italians were aroused in 91 B.C. to demand a redress of their wrongs and a share in the privileges of Roman citizens. A war ensued, generally known as the social war, but frequently called the Marsic war, because the Marsi were prominent among the malcontents. Their leader was Silus Pompædius. Though often defeated, their perseverance gained the object for which they had taken up arms in 87 B.C. The Marsians, inhabiting a mountainous district, were simple and temperate in their habits, but hardy, brave, and unyielding. So marked was their valor that there was a proverbial saying recorded by Appian, "that Rome had achieved no triumph over the Marsi, or without the Marsi." The ancient Marsi were represented as enchanters, able to tame serpents and to heal their bites; and it is worthy of note that the jugglers who now amuse the people by handling serpents are natives of the region in the vicinity of *Lago di Celano*. Their only important town was *Marrucium* (San Benedetto), the ruins of which are visible on the east shore of the lake.

MARSIPOBRANCHII, the second of the six orders of fishes instituted by Huxley, including the lampreys and the hag-fishes. They are the dermopterous fishes of Owen. See HAG; LAMPREY; *ante*.

MARS-LA-TOUR, a village and commune of France, 15 m. from Metz, on the route between Metz and Verdun; pop. 652. It is a manufacturing place of woollens, hardware, oils, and dye-stuffs. Lumber and grain also are products. In the 15th c. it had a fortified chateau. On Aug. 16, 1870, it was the scene of the bloody battle of Gravelotte between the French and the Germans.

MARSTON, GILMAN, b. in Oxford, N. H., about 1815; graduated at Dartmouth college in 1837, and at the Cambridge law-school in 1840; settled at Exeter, N. H., in 1841; was a member of congress, 1859-63 and 1865-67. He served with distinction in the war for the union, first as col. of the 2d New Hampshire, and afterwards as a brig.gen. of volunteers.

MARSTON, JOHN, 1575-1634; b. England; educated at Corpus Christi college, Oxford, according to Anthony Wood, though this, like many other points in the poet's life, is doubtful. He is satirized under the name of Demetrius in Ben Jonson's *Poetaster*, 1601. The hostility between the two poets seems to have been at an end in 1605, when Marston dedicated to Jonson his play of *The Malcontent*. The same year he joined with Jonson and George Chapman in the authorship of *Eastward Hoe*. James I. imprisoned the three authors on account of some satire which the play contained against the Scotch. Soon after their release the ill-feeling between Jonson and Marston broke out again, for the latter, in the preface to *Sophonisba*, 1606, taunts Jonson with his plagiarisms from Latin writers, and Jonson, in a conversation with Drummond of Hawthornden refers to an enmity of long-standing between himself and Marston. The other works of Marston are: *The Metamorphosis of Pigmalion*, 1598; *Antonio and Mellida*, a tragedy, 1602; *Antonio's Revenge*, a tragedy, 1602; *The Dutch Courtesan*, a comedy, 1605; *Parasetaster*, a comedy, 1606; *What You Will*, a comedy, 1607; *The Insatiate Countess*, a tragedy, 1613; and *The Scourge of Villanie*, a satire of great power. His miscellaneous poetical works were collected and published by Mr. Bowle in 1764.

MARSTON, WESTLAND, LL.D., b. England, 1820; studied law, but left it for literature. He was at one time an editor of the *National Magazine*, and an occasional contributor to the *Athenæum*. He has published *Gerald and other Poems* (1842); a novel called *A Lady in her own Right* (1860); and a collection of stories called *Family Credit and other Tales* (1861). His principal literary activity, however, has been in the direction of dramatic literature, and of his numerous plays we may mention *The Patrician's Daughter*, a tragedy (1841); *The Heart and the World* (1847); *Ann Blake* (1852); *The Favorite of Fortune*, a comedy produced at the Haymarket theater in 1866; *A Hero of Romance* (1867); and *Life for Life*, a play in blank verse, produced at the lyceum theater in 1868, and whose principal character was played by the late Adelaide Neilson.

MARSTON MOOR, a plain in Yorkshire, England, where, July 2, 1644, the royalist force, under prince Rupert, was beaten by the parliamentary forces, English and Scotch, under Fairfax and the earl of Leven. The approach of Rupert forced Fairfax to abandon the siege of York, and he took up his position on Marston Moor, with about 25,000 men. Rupert, with about the same number, came up with him on the afternoon of July 2. It was not till about 7 o'clock that the battle, which had up to this time been little more than a desultory cannonade, began in earnest. Rupert, at the front of the royalist right, made a fierce charge upon the parliamentary left, which broke and fled in disorder. The parliamentary center had likewise been broken by the infantry royalist center, and had suffered heavily. The battle seemed irretrievably lost to the parliamentary leaders, who left the field. But while the royalists were dispersed in search of plunder or in pursuit of the enemy, Cromwell's famous "Ironsides" brigade, with the Scotch regiments, commanded by David Leslie, and some others, rallied, charged the royalists vigorously, and remained masters of the field, capturing 1500 prisoners and all the royalist artillery. The killed and wounded on each side numbered about 2,000. This victory resulted in the occupation of York and the control of the whole north of England by the parliamentary force.

MARSTRAND, WILHELM, 1810-73; b. Copenhagen; studied art there, at Munich, and at Rome. He attained high rank by his *genre* paintings, and became a professor and director of the Copenhagen academy. His most meritorious works are, perhaps, "Return of a Society from a Popular Festival," and "Erasmus Montanus."

MARSUPIALIA (*ante*), one of the two orders of non-placental mammals, including the opossum and kangaroo. The other order, *monotremata* (q.v.), includes the *ornithorhynchus*, duck-mole or duck-bill (q.v.). The marsupialia, with the exception of the genus *didelphys* (opossums), are exclusively natives of Australia, Van Diemen's Land, New Guinea, and neighboring islands. They are divided into two primary sections, *diprotodontia* and *polyprotodontia*. Diprotodontia contains three sub-sections: 1. *Rhizophaga*, containing the wombat, a stout, heavy animal 2 or 3 ft. long, having curved, digging claws upon the fore-feet, and a dentition resembling that of the herbivorous rodents. There are two incisors in each jaw, growing from permanent pulps. There are no canines, and the incisors and premolars are separated by a considerable space. Dental formula: $i., \frac{1-1}{1-1}; c., \frac{0-0}{0-0}; pm., \frac{1-1}{1-1}; m., \frac{4-4}{4-4}=24$. It is nocturnal in habits, feeding upon roots and grass in Australia and Tasmania. 2. *Poephaga*. This section contains the kangaroo (q.v.) (*macropodidae*) and the kangaroo-rat (*hyposipymnus*). The kangaroo-rats differ from the true kangaroo in their smaller size and well-developed upper canines, and also in having scaly tails, like the opossums. The dental formula of the kangaroo is: $i., \frac{3-3}{1-1}; c., \frac{0-0}{0-0}; pm., \frac{1-1}{1-1}; m., \frac{4-4}{4-4}=28$. 3. *Carpophaga*. The typical animals of this

section are the phalangers, so called from the fact that the second and third digits of the hind-feet are united almost to their extremities (see PHALANGER and FLYING-PHALANGER, *ante*). Intermediate between the phalangers and the kangaroos is the kangaroo-bear of the colonists, or the *koala* (q.v.) or *phascogale*, whose dental formula is: $i., \frac{3-3}{1-1}; c., \frac{1-1}{0-0}; pm., \frac{1-1}{1-1}; m., \frac{4-4}{4-4}=30$.

The second primary section, polyprotodontia, contains two sub-sections. 1. *Entomophaga*, which contains the bandicoot (q.v.), the opossum (q.v.), and the banded ant-eater. The dental formula of the bandicoot is: $i., \frac{5-5}{3-3}; c., \frac{1-1}{1-1}; pm., \frac{3-3}{3-3}; m., \frac{4-4}{4-4}=48$.

The dental formula in the opossum is: $i., \frac{5-5}{4-4}; c., \frac{1-1}{1-1}; pm., \frac{3-3}{3-3}; m., \frac{4-4}{4-4}=50$. The

banded ant-eater, *myrmecobius fasciatus*, is a small, rather pretty animal of south-western Australia, differing from the other *didelphidæ* in not having a prehensile tail. The fore-feet have five toes, while the hind-feet have but four each. It has a number of light and dark bands across its back. These animals are remarkable for the number of their molar teeth, having more than any other marsupial and exceeded only by some of the armadillos.

Their dental formula is: $i., \frac{4-4}{3-3}; c., \frac{1-1}{1-1}; pm., \frac{3-3}{3-3}; m., \frac{6-6}{6-6}=54$. 2. *Sar-*

cophaga. This sub-section includes a number of animals which, unlike most of the order, are carnivorous and very rapacious. The best known are *thylacinus cynocephalus*, or the Tasmanian wolf (see THYLACINE, *ante*), the *dasyurus ursinus*, or ursine opossum, also called "devil," "wildcat," and "hyena" by the settlers (see DASYURE, *ante*), and also the *dasyurus macrurus*, or long-tailed dasyure, sometimes erroneously called the spotted marten, a name given to it in Phillips's *Voyage*. It somewhat resembles the weasel and marten in form, but is more clumsy, although exceedingly vigorous, active, and ferocious. They were very troublesome to the first settlers, as was also the ursine opossum, or "devil," committing various depredations.

The marsupials are regarded as the earliest developed mammals whose fossils have been discovered, although there is some uncertainty. The oldest known European mammal is the *microlestes antiquus* of the upper triassic formation, only the teeth of which have been found, and it is believed to have been a marsupial and related to the banded ant-eater. The two jaw-bones of an allied animal were found in the trias of North America by Prof. Emmons several years ago, and in the opinion of Prof. Owen they belonged to an insectivorous marsupial also allied to the banded ant-eater. In the stone-field slate of the lower oolitic formation a great share of the mammalian remains belong to the small marsupials. In the upper oolite the remains are chiefly marsupial, of the size of a hedgehog and smaller. Fossil marsupialia, allied to the opossum, have been found in Europe in eocene and miocene, and also in the upper Jurassic of North America.

MARSUPIITES, or TORTOISE ENCRINITES, a genus of extinct crinoids, established by Miller, and found only in the cretaceous formation. The calyx is of large size and the center of its base consists of a single plate, which may be regarded as the uppermost segment of a stem, although the animal is not pedunculated or attached. The pelvis, therefore, resembles a plated pouch surrounded by two cycles of radials. See CRINOIDEÆ, *ante*.

MARSYAS, in legend, a Phrygian satyr who entered into a musical competition with Apollo, under an agreement that the defeated contestant should be at the mercy of the winner. The Muses were selected as judges, and awarded the superiority to Apollo, who accompanied his lyre with the voice, while Marsyas played upon the pipe which had been thrown away by Athene. Apollo flayed Marsyas alive, and the tears of the rural divinities for the satyr were said to have formed the river named after him, which flows into the Mæander. The subject was a favorite one with the ancient sculptors.

MARTENSEN, HANS LASSEN, D.D., b. at Flensborg, Denmark, Aug. 19, 1808; studied theology at the university of Copenhagen; and in 1840 became professor at the university, first in philosophy, and afterwards in theology. In the same year appeared his first book, *Mester Eckart*, which was an essay on the mysticism of the middle ages. It was received with much enthusiasm both in Denmark and Germany. In 1841 appeared his *Outline of a System of Ethics*, followed, in 1849, by *Christian Dogmatics*. In the latter the author, as a disciple of Hegel, undertakes to reconcile faith and reason, revelation and science—a task which he performed with such acuteness and ingenuity as to excite the admiration of Christian readers in many countries. In 1845 he was appointed preacher to the Danish court, and in 1853 elevated to the bishoprick of Sealand, the highest dignity of the Danish church. In this position, by his eminent scholarship, his catholic spirit, and his tireless activity, he has exerted a powerful and beneficent influence. In 1872 he published a *System of Christian Ethics*.

MARTEN, SPOTTED, or LONG-TAILED DASYURE. See MARSUPIALIA.

MARTHA'S VINEYARD (*ante*), an island 20 m. in length and 3 to 9 m. wide, off the s.e. coast of Massachusetts, is a part of Duke's co., and is separated from Barnstable co. by Vineyard sound, $3\frac{1}{2}$ to 7 m. in width; pop. '70, 3,678. It was discovered by Bar-

tholomew Gosnold in 1602; and at that time was heavily wooded, and contained deer and other game, berries and fruits in profusion, a fresh-water lake, springs, and many wild vines. Gosnold at first gave the name, doubtless in memory of some friend, to a barren islet (No Man's Land) lying s.w. of the larger island to which he afterwards transferred the name. At the period of its discovery, Martha's Vineyard was found to be valuable on account of its growth of sassafras, which was highly esteemed in Europe as a medicine, and of which cargoes were carried away from the island and the mainland. In 1647 Thomas Mayhew, who had become governor of this island in 1641, by grant from the earl of Stirling, settled where Edgartown now stands, and where the Mayhew family remained in control until 1710. Members of this family conducted missionary enterprises on the island, among the natives, with great zeal and earnestness, and with such success that Christian villages abounded. The new converts proved their devotion by guarding the island during the progress of king Philip's war; but later on they gradually died out. In 1835 the island of Martha's Vineyard was first used for the purposes of a camp-meeting, 9 tents being pitched on the site of the present camp-ground. This institution continued to thrive until it had grown to its present importance and comprehensive scope. Of late years, the annual gathering for religious purposes has numbered as many as 25,000 persons, the meeting occurring in August, in a large grove of shade-trees. Here a settlement of tasteful cottages has grown up, the site being laid out in streets, lighted at night, and at such a time presenting a scene of fairy splendor. It has become a place of fashionable resort, families from Boston and other cities occupying the cottages during the season. East of the camp-grounds a ledge of bluffs extends along the edge of the shore, overlooking the sea from a height of about 30 feet. Here the village of Oak Bluffs was laid out in 1868, and has since become a fashionable watering-place, visited in the season even from so far s. as New York and Philadelphia. Oak Bluffs is connected with Edgartown by a narrow-gauge railroad. Twenty m. distant, at the w. end of the island, is Gayhead, an abrupt and bold coast-line eminence, which is said to be of volcanic origin. Six m. e. of Oak Bluffs is Edgartown (q.v.), the principal town on the island; and beyond this is Katama bay, which is a place of resort for social entertainment, and has attractions in its beautiful scenery. The island is accessible by steamer from New Bedford and Wood's Holl.

MARTIAL LAW (*ante*) must be distinguished from both military law and military government. The last denotes the rule of a conquered or insurrectionary district by military authority, while military law is that branch of the law which regards military discipline and the government of persons employed in the military service. Martial law, says Kent, supersedes and suspends the civil law, but military law is superadded and subordinate to the civil law. As good a definition as any of martial law, which is in its nature somewhat indefinite, is that given by prof. Joel A. Parker, in the *North American Review*, Oct., 1861. "It is," he says, "that military rule and authority which exists in time of war, and is conferred by the laws of war, in relation to persons and things under and within the scope of active military operations, in carrying on the war; and which extinguishes or suspends civil rights and the remedies founded on them, for the time being, so far as it may appear to be necessary, in order to the full accomplishment of the purposes of war." It will be seen that martial law is in the highest degree arbitrary and capable of abuse. It may be decreed at will by competent military authority, and the only rule as to the propriety of its being established is the test of necessity. The duke of Wellington, from his place in the English house of lords, deprecated its employment, except under the most urgent pressure, and then only with great modifications.

In a celebrated Ceylon case the late lord chief-justice Cockburn was very reluctant to admit that civil law could be superseded by court-martial, *except* where, as in India, the military government was absolute; but in the same case Blackburn, J., laid down the dictum universally accepted in the United States, that martial law is derived from statutory provisions and founded on paramount necessity. Thus the question as to its *nature* is closely connected with the *manner* of its exercise, and this again with the *responsibility* for such exercise. As to its extent, we may refer to a decision of the U. S. supreme court in the case of *Neal Dow v. Bradish Johnson*, October term, 1879. It was held: that an officer of the United States, while in service in an enemy's country, was not liable to an action in civil courts for acts done in pursuance of a superior's orders; and when any portion of an enemy's country was in the military possession of the United States, the municipal laws were to be continued in force and administered through the ordinary channels for the protection and benefit of the inhabitants and others not in military service, but not for the protection or control of army officers or soldiers. In the supreme court of Missouri it has been held that the act of congress making the order or authority of the president a good defense for acts done or left undone during the rebellion, is unconstitutional (64 Mo., 564). Where an inferior confederate officer, under the orders of his superior, destroyed large quantities of spirits to preserve the discipline of his command, the courts of Mississippi held that such order was no defense in an action for damages brought after the close of the war.

The whole subject of the relations of the civil and military authorities in time of war, and especially the constitutionality of acts passed distinctly as war measures, is of

great interest, and, while much may be *res judicata*, there are many points not yet clearly determined.

MARTIN, a co. in s.w. Indiana, intersected by the Ohio and Mississippi railway, drained by the East fork, or Driftwood fork, of the White river, entering it in the n.e., and forming part of its s.w. boundary; about 340 sq.m.; pop. '80, 13,475—13,240 of American birth, 16 colored. Its surface is hilly, with a large portion of tillable land still covered with forests. Its soil is fertile, and adapted to the raising of live stock, and the production of fruit, buckwheat, oats, corn, rye, wheat, tobacco, wool, the products of the dairy, honey, sorghum, maple-sugar, and flax. Its mineral products are sandstone and coal; and there are sulphur springs in the n. portion. Among its manufactures are flour-mills, and lumber-mills, spoke factories, blast-furnaces, and distilleries. Seat of justice, Shoals.

MARTIN, a co. in e. Kentucky, formed out of portions of Lawrence and Pike counties, has the Tug fork of the Big Sandy river for its e. boundary, separating it from West Virginia; about 220 sq.m.; pop. '80, 3,057—3,053 of American birth, 32 colored. A range of mountains forms its s.w. border, and its general surface is hilly, with a thick growth of hardwood timber on the hill-sides. Its soil, near the river and its tributaries, is fertile, and corn and live-stock are raised. Coal is found and is easily mined, and salt is manufactured. Seat of justice, Warfield.

MARTIN, an e. co. of North Carolina, touching on Albemarle sound, and having the Roanoke river for its n. boundary; 520 sq.m.; pop. '80, 13,140; traversed by the Seaboard and Raleigh railroad. The surface is level and in some portions swampy; the country is heavily wooded. The soil is fertile, producing corn and cotton. Co. seat, Williamston.

MARTIN, a co. in s. Minnesota, having the state line of Iowa for its s. boundary, drained by the Chanyuska river emptying into the Blue Earth river in the next county, with a few small lakes in the n., and Chalk lake in the s. portion; 720 sq.m.; pop. '80, 5,249—4,245 of American birth. Its surface is somewhat undulating, but spreads out into broad prairies for the most part. Its soil is fertile, and adapted to the raising of sheep, the production of Irish potatoes, dairy products, sorghum, honey, and every variety of grain. Its water-power is utilized by flour and saw mills. Seat of justice, Fairmount.

MARTIN (*ante*) I., SAINT, d. 655; son of Fabricius, succeeded Theodore I. in the papal chair, A.D. 640; opposed the will of the emperor Constans II. by assembling the first Lateran council at Rome in October, 649, in which the emperor's decrees were denounced, the pope presiding over 104 bishops from Italy, Sicily, Sardinia, and Africa. Five sessions were held, and the judgment of the council was pronounced in 20 canons, anathematizing all those who do not admit the existence in Jesus Christ of two wills and two operations; this being the question as to which the emperor Constans had pronounced for the opposite side. The opposition to his will on the part of Martin enraged the emperor, who ordered the imprisonment of the pope. He was accordingly taken to the island of Naxos in June, 653, and retained there an exile until Sept. 17 of the following year. He was now taken to Constantinople, where he was detained in prison six months. As he still refused to recant his opinions, he was exiled to the Thracian Chersonese, where he suffered great indignities and deprivation until his death. His body was afterwards removed to Rome, and the church of Rome commemorated his name. Eighteen encyclical letters are attributed to him, and are published in Labbe's *Concilia* and the *Bibliotheca Patrum*.—II., or MARINUS I., d. 884; a native of Montefiascone, in the papal states. He was three times papal legate to Constantinople; elected pope Dec. 23, 882, surviving his election only 14 months.—III., or MARINUS II., born in Rome, succeeded Stephen VIII in 942, and held the papacy 4 years, until his death, which occurred in 946. He was a patron of learning, and was held in high repute as one whose example was Christian and noble.

MARTIN, ALEXANDER, LL.D., 1740–1807; b. N. J., of Irish parentage; graduated at the college of New Jersey in 1756; removed in 1772 to Guilford co., N. C.; became a member of the colonial assembly; was appointed in 1776 col. of a regiment, and fought at Brandywine and Germantown; was state senator for several terms between 1779 and 1785; speaker of the senate in 1787–88, and acting governor in 1781–82; was elected governor in 1782; re-elected in 1789; was a member of the U. S. constitutional convention; U. S. senator, 1793–99.

MARTIN, BENJAMIN NICHOLAS, D.D., b. at Mount Holly, N. J., Oct. 20, 1816; graduated at Yale college in 1837, and at the divinity school in 1840; settled as pastor of a Congregational church in Hadley, Mass., 1843–47, and as pastor of the Fourth Presbyterian church in Albany in 1848–49. In 1852 he became professor of rhetoric and intellectual philosophy in the university of the city of New York, which place he still retains.

MARTIN, BON LOUIS HENRI, b. at St. Quentin, Feb. 20, 1810; son of a magistrate of that city. At the age of 20 he was recognized as a youth of unusual elevation of mind and independence of spirit, tempered with a mild and modest manner. Educated for the practice of law he found time for his tendency to literary expression in other

channels and on many diverse subjects. In partnership with another youth he published a novel entitled *Tour du Loup* in 2 volumes, and contributed quite a number of little poems to the journals. These were followed by many other romances. While working with Paul Lacroix, it was suggested that they should compile a history of France, to be made up of extracts from different authors. One volume was published, when Lacroix abandoned it, but Martin resolved to go on. It became an enormous labor. The first volume of Martin's work appeared in 1837, and 18 volumes followed down to 1854. In 1844 the academy of inscription gave him a prize of 9,000 francs; in 1851 he received the first prize. In 1860 the work as far as completed was published in a new form in 16 octavo volumes. With the history of France by Thierry, it occupies the highest place. Martin is a distinguished member of the republican party in France. In 1848 he was appointed by Carnot provisional minister of public instruction, but the reactionary methods of the government induced him to resign. On the fall of Napoleon he was made mayor of one of the arrondissements of Paris, and endeavored, without success, to dissuade the communists from their assumption of the government. He was elected from two districts to the national assembly, which he entered early in 1871, and took his seat with the extreme left. In July, 1871, he was elected a member of the academy of moral and political science, and in October councilor-general of his native department of *l'Aisne*. Besides the history of France the following are among his works: *Minuit et Midi*, 1832, reprinted in 1855 under the title of *Tancrède de Rohan*; *L'Abbaye-au-Bois, ou la Femme de Chambre*; *Histoire de Soissons*, 1837; *De la France, de son génie et de ses destinées*, 1847; *Daniel Mauvin*, 1855; *L'Unité Italien et la France*, 1861; *Jean Reynaud*, 1863; *Pologne et Moscovie*, 1863; *Vercingetorix*, 1865; *La Russie d'Europe*, 1866; *Histoire de France populaire*, 1867; *Etudes d'archéologie Celtique*.

MARTIN, DAVID, 1639-1721; a French Protestant clergyman, exiled to Holland by the edict of Nantes, where he became professor of philosophy and theology in Utrecht. He was author of the *History of the Old and the New Testament* printed in French and Dutch at Amsterdam in 1700. It was copiously embellished with fine engravings, and is known as *Mortier's Bible*.

MARTIN, FELIX, b. at Auray, France, in 1804. In 1842 he was sent as a French Jesuit priest to Canada to revive the missions there; founded St. Mary's college in Montreal; collected material for the history of Canada, and has published and edited many works throwing light on the old Canadian Jesuit missions; among which are the following: *Manuel du Pèlerin de Notre Dame de bon Secour*, Montreal, 1848; *Relation des Jésuits*, an enlarged edition of O'Callaghan's work; *Mission du Canada, relations inédites*, Paris, 1861; *De Montcalm en Canada*, 1867. He assisted Carayon in a series of volumes on the Jesuit missions.

MARTIN, FRANCIS XAVIER, LL.D., 1764-1846; b. France; settled in Martinique, where he engaged in business, but failed. In 1786 he removed to North Carolina, and gave French lessons. He then learned the printer's trade, edited a newspaper, and published a number of works, among them a series of treatises on the duties of public officers, the fruit of his studies for the bar, to which he had already been admitted. He compiled the colonial statutes of North Carolina, and made digests of the state statutes. To him, also, are due the first published volumes of North Carolina state law reports. He served as a judge of the territory of Mississippi for a year, when he was appointed to a similar position in the territory of Orleans. He had already translated, while in North Carolina, the work of Pothier on *Obligations*, and his familiarity with the civil law enabled him to be of great service to the jurisprudence of the new state of Louisiana, whose first attorney-general he was. Two years later, in 1815, he was appointed a justice of the Louisiana state court, and remained in that office till his death. An almost total blindness, from which he suffered during the last ten years of his life, did not interfere with the discharge of his judicial duties. He reported the decisions of the Orleans superior court from 1819 to 1830, and of the Louisiana supreme court from 1813 to 1830. He published a history of North Carolina in 1829 and of Louisiana in 1827. Harvard and Nashville universities conferred upon him the degree of LL.D.

MARTIN, Sir JAMES RANALD, 1800-74; b. at Kilmuir, Skye; entered the medical staff of the Bengal army in 1818. He was appointed sanitary commissioner in England in 1841, knighted in 1860, and made examining physician of the secretary of state for India, inspector-general of hospitals, etc. His work *On the Influence of Tropical Climates*, published in 1855, is regarded as an authority.

MARTIN, JOSIAH, 1737-86; b. Va.; entered the British army as ensign in 1756, and was afterwards promoted to the rank of lieutenant-col. In 1771 he was appointed governor of North Carolina, and at the breaking out of the revolutionary war took refuge on board a British man-of-war; was with the British fleet before Charleston in 1776, and with Cornwallis at the battle of Camden in 1780. After this he withdrew to Long Island, and thence to England, and died in London.

MARTIN, LUTHER, LL.D., 1744-1826; b. New Brunswick, N. J.; graduated at Princeton in 1766; was a prominent lawyer in Virginia and Maryland; a member of congress in 1784-85; attorney-general of Maryland in 1788 and 1818. As a member of the convention which framed the constitution of the United States, he earnestly opposed the

adoption of that instrument. In 1814 he was appointed judge of oyer and terminer in Baltimore. He was a zealous friend of Aaron Burr, defending him on his trial for treason. Died in New York.

MARTIN, ROBERT MONTGOMERY, b. England about 1805; distinguished as a geographer and statistician; author of *The Colonies of the British Empire*; *The British Colonial Library*; *The History, Antiquities, Topography, and Statistics of Eastern India*; *Ireland Before and After the Union*; *China, Political, Commercial, and Social*; *The Hudson's Bay Territories*; *The Indian Empire*; and *Progress and Present State of British India* (1862). He was for several years editor of the *Colonial Magazine*; he also superintended the publication of *The Illustrated Atlas and Modern History of the World*.

MARTIN, AIMÉ. See AIMÉ-MARTIN.

MARTINEAU, JAMES (*ante*), is of French lineage. His father was in humble circumstances—a manufacturer of bombazines. From the beginning of his ministry his sermons attracted attention by their deep earnestness and strong grasp upon the gravest problems of human life. While he was preaching in Liverpool in 1839, he took part with J. H. Thom and Henry Giles in a controversy with thirteen clergymen of the church of England upon themes involving the points of difference between Unitarians and evangelical Christians. The lectures on both sides were published in 2 vols., entitled *Unitarianism Confuted*, and *Unitarianism Defended*. The themes discussed by Mr. Martineau in these volumes were: "The Bible;" "The Deity of Christ;" "Vicarious Redemption;" "The Christian View of Moral Evil;" and "Christianity without Priest and without Ritual." He ranks by universal consent among the profoundest thinkers and metaphysicians of the age, and probably is not surpassed by any living writer for the charming simplicity and forceful clearness of his style. He has done much for his sect, but far more for Christianity itself by his efforts to reconcile the claims of faith and reason in religion. He has distinguished himself, especially in the last few years, as the champion of spiritual faith against the various schools of atheism and materialism, winning thus the admiration and gratitude of Christians of every name. His *Religion and Modern Materialism* was published in New York in 1874. Since that time he has written quite extensively for current reviews and magazines, though ill-health compelled him several years ago to retire from the pulpit.

MARTINDALE, JOHN H., b. Sandy Hill, N. Y., 1815; graduated at West Point, and served for a time in the army, but resigned in 1836 to become a railroad engineer. In 1838 he settled in Batavia, N. Y., practicing law there until 1851, when he removed to Rochester. He enlisted in the war for the union in 1861, was appointed a brig. gen. of volunteers, and led a brigade in Porter's corps in the peninsular campaign of 1862. He was military governor of the District of Columbia from Nov., 1862, until May, 1864, when he joined the 18th corps of the army of the James, and was in the battles of Cold Harbor and the siege of Petersburg. He resigned on account of ill-health, Sept. 13, 1864, and was elected attorney-general of the state of New York in 1866.

MARTIN DE MOUSSY, JEAN ANTOINE VICTOR, 1810-70; b. at Moussy-la-Vieux, France; studied medicine in Paris, and practiced in the military hospitals. In 1841 he went to Montevideo, S. A., where he was engaged in the practice of medicine for 12 years, keeping all that time a meteorological register. During the siege of Montevideo, which continued 9 years, he was director of the medical service to the French and Italian legions. After the downfall of Rosas, the Argentine dictator, in 1852, Dr. Martin de Moussy was employed by the government of president Urquiza to prepare a geographical description of the republic. In the execution of this task he spent 4 years in constant travel, visiting Paraguay, the Gran Chaco, portions of Chili and Bolivia, and all the Argentine provinces in succession. The results of his labors are embodied in his work in 3 vols., entitled, *Description, géographique et statistique, de la Confédération Argentine*. This work, with the atlas accompanying it, is of the highest authority. Dr. Martin de Moussy was also one of the writers of the *Encyclopédie des Connaissances utiles*, and of the *Dictionnaire Politique*. Died in Paris.

MARTINET, ACHILLE LOUIS, b. Paris, 1806; studied engraving at Rome, where he won the second grand prize in 1826, and the first in 1830. He has engraved from the works of the great Italian painters, and the most celebrated living artists as well. His earliest notable success was an engraving, exhibited in 1835 of Rembrandt's portrait of himself; and among his later works may be mentioned engravings of Murillo's "Nativity," 1869; and Heim's "Martyrdom of St. Juliette," 1873.

MARTINEZ DE LA ROSA, FRANCISCO, 1789-1862; b. Spain; studied law at the university of Granada, and was appointed lecturer on ethics at the university of S. Miguel when less than 20 years old. The French had just invaded Spain, and he entered enthusiastically into the national movement. He was employed by the junta of Granada, his native town, to get arms and supplies for the Spanish cause from the English at Gibraltar, and he afterwards went to England on the same errand. There, in 1811, his first poem, *Zaragoza*, was published. He wrote also, while in London, a sketch of the Spanish war of independence for Blanco White's paper, *El Español*, then being published. On his return to Spain he produced, at Cadiz, a tragedy called *La Vinda de Padilla*, which was successful, and was followed by a comedy *Lo que puede un*

Empleo, satirizing political life. In 1813 he was returned to the cortes from Granada, and at once took a high position as an orator. He was a supporter of the constitution of 1812, which king Ferdinand, on his return to Spain in 1814, overthrew, when Martinez was sentenced to imprisonment for 10 years. Released by an insurrection in 1820, he was for a short time secretary of state, but his opinions had somewhat moderated during his absence, and he lost favor with the populace, to avoid whose violence he resigned. The next eleven years of his life were passed in Paris, with an occasional trip to Italy and Germany. Between 1827 and 1837 he published at Paris a collection of his *Obras Literarias* in 5 vols. These contain, besides the *Vinda de Padilla*, 4 other plays: *La Niña en Casa y la Madre en la Mascara*; *Edipo*, a classical tragedy; *Aben Humeya*, founded on the Moorish insurrection under Philip II.; and *La Conjuracion de Venecia*, written in the manner of the French romanticists. In the collection are also included a *Poetica*, or treatise on the art of poetry, and a number of essays on Spanish literature. In 1830 he was permitted to return to Spain, and began to write a historical novel, *Doña Isabel de Solis*, the last volume of which was not published till 1846. Meanwhile he became the head of a liberal ministry, and was the author of the royal statute of 1834, which created a constitutional government like the English, and took away the ancient privileges of the provinces. The abolition of these privileges caused a revolt by the Basque provinces, which attached themselves to Don Carlos; civil war broke out, Martinez de la Rosa and the moderates became more and more unpopular, an attempt was made upon his life in 1835, and the next year he resigned. He distinguished himself in opposition in the cortes, and he once more took office; but the constitution of 1812 was restored, the royal statute annulled, and on the fall of queen Christina in 1840 he again went to Paris, and resumed the composition of *Espiritu del Siglo*, a work on political science, which had been begun in 1835, and whose tenth and last volume was published in 1851. Upon the fall of Espartero he entered the Narvaez cabinet, and was afterwards ambassador to Paris and to Rome. Returning to Spain he was elected president of the chamber of the peers; and he was perpetual secretary of the Spanish academy.

MARTIN MAR-PRELATE, CONTROVERSY OF. Certain tracts; appeared in England about 1580, described by Hardwick in his church history "as a series of scurrilous libels in which the queen, bishops, and the rest of the conforming clergy were assailed with every kind of contumely." They are supposed to have been written by some Puritan radicals in the height of the controversy between the church and the Puritans. One writer thinks "there is reason to believe that the whole was a contrivance of the Jesuits;" but of this there is no evidence. Two Puritan divines, Udal and Penry, were tried, and charged with the authorship, but they refused to make any disclosures, and the real authorship of the lampoons was never known. Neale, in his history of the Puritans, gives their titles and contents.

MARTINSBURG, a t. in n.e. West Virginia, in the neighborhood of the Blue Ridge, a region of great fertility; pop. '80, 6,384. It is at the junction of the Martinsburg and Potomac division of the Cumberland Valley railroad and the Baltimore and Ohio, and is the center of an important and increasing trade. It is 78 m. e. of Cumberland, and 100 m. w. of Baltimore. It is lighted with gas, and has water-works erected at a cost of \$90,000, a large court-house, 3 newspapers, 11 churches, 3 banks (one national), with a capital, collectively, of \$200,000. It has a fine market, a variety of stores, and a number of railroad repair shops, employing 600 hands. Its industries are the manufacture of furniture and carriages; it has also distilleries, planing and flour mills. There are 6 excellent public schools, and 2 seminaries for girls.

MARTYN, HENRY, 1781-1812; b. Truro, co. of Cornwall, England; of humble origin, his father being a laborer in the mines of Gwenap. At the age of seven he was placed at the grammar school of Truro with Dr. Carden, where he made great proficiency in the classics. Remaining here till the age of fourteen, he offered himself as a candidate for a vacant scholarship at Corpus Christi college, Oxford, but, being unsuccessful, he returned to Dr. Carden's school, and after two years' study entered, in 1797, St. John's college, Cambridge; obtained in 1801 the highest academical honor of "senior wrangler" and the prize for the greatest proficiency in mathematics; in 1802 was chosen fellow of his college, besides gaining the first prize for the best Latin prose composition. The sudden death of his father and the earnest preaching with the faithful counsel of Mr. Simeon, the university preacher, led to his conversion and dedication to the ministry. A remark of Mr. Simeon on the good resulting from the services of Dr. Carey in India, and a perusal of the *Life of David Brainerd*, led to his deciding to be a missionary. Bright prospects of honorable distinction at Cambridge, intense enthusiasm in literary pursuits, an exquisite relish for the refined enjoyments of social life, affected not his purpose. After receiving ordination in 1803, he was curate of the rev. C. Simeon; in 1804 he was public examiner in St. John's in the classics and Locke's treatise on the understanding; in 1805 he sailed for India as chaplain in the East India company's service, and reached Calcutta in May, 1806; in September received his appointment to Dinapore, and soon conducted worship among the natives in their own vernacular, and established schools for their instruction. He engaged while here in the study of Sanskrit, in revising the sheets of his Hindustani version of the New Testament, and superin-

tending the Persian translation made by Sabat. He had religious discussions daily with his moonshee and pundit. In 1807 he completed the translation of the Book of Common Prayer into Hindustani. In March of the same year he finished a *Commentary on the Parables*. In 1809 his ministry among the heathen began and he was stationed at Cawnpore. He suffered exceedingly in the journey from Dinapore from the intense heat. And soon after his arrival he preached to a thousand soldiers in a hollow square, in the open air, with the heat so great that even before sunrise many dropped down from its effect. He continued his work among the hundreds of heathen mendicants who crowded around him. Having perfected himself in the Persian language, he decided to extend his labors to that country, and took up his residence at Shiraz, where he revised, with the aid of learned natives, his Persian and Arabic translation of the New Testament, and held discussions with the mollahs and sufis, many of whom were greatly impressed. "Henry Martyn," said a Persian mollah, "was never beaten in argument; he was a good man, a man of God." In view of the effect of his frequent discussions, and of his being engaged in a translation of the New Testament into Persian, the preceptor of all the mollahs wrote an Arabic defense of Mohammedanism. To this Martyn replied in Persian. At Shiraz he held a public discussion with a professor of Mohammedan law, and another more important with Mirza Ibraheem in a court of the palace of one of the Persian princes, where was collected a large body of mollahs. Having finished his translation of the New Testament, he commenced a version of the Psalms from the Hebrew. Having ordered two copies of the New Testament to be prepared, one for the king of Persia, the other for the prince Abbas Mirza, his son, he left Shiraz for Talaiz to make the presentation, but was seized with fever on the way and so prostrated that he found it necessary to seek a change of climate. Compelled thus so relinquish his purpose, sir Gore Ouseley, the British ambassador, promised to present the New Testament at court, which he did, and the king publicly expressed his approbation of the work. The ambassador also carried the MS. to St. Petersburg, where, under his superintendence, it was printed and put into circulation. Martyn now decided to return to England, and Sept., 1812, set out for Constantinople, reaching Tocat in Asia Minor, where his utter prostration compelled him to stop. Either falling a victim to the plague then raging or sinking under the disease which had so greatly reduced him, he died Oct. 16, 1812, in the 32d year of his age. A monument was erected at Tocat in 1856. He was the author of *Sermons, Controversial Tracts, Journals and Letters*.

MARTYNIA, a genus of plants belonging to the order *bignoniaceæ* (q.v.). They are low, branching annuals with thick stems; leaves simple, rounded; flowers in racemes, large, bell-shaped, and somewhat 2-lipped; fertile stamens, 4, sometimes only 2. The fruit is a pod with a long incurved beak; when ripe the pod splits into 2-hooked horns, opening at the apex, between the horns. Seeds numerous, black, with a thick, wrinkled coat. The plant has a rather unpleasant odor. There are seven or eight species, which are natives of warm countries, except *M. proboscidea*, which is a native of the United States, growing on the banks of the Mississippi, in southern Illinois, and south-westward. It is called the unicorn plant, and is cultivated in gardens for its fruit, which, when the pods are young, are used for making pickles. The leaves of this species are heart-shaped, oblique, entire, the upper alternate; corolla dull white or purplish, or spotted with yellow and purple; endocarp of the fruit crested on one side, long beaked. *M. fragrans*, from New Mexico, has violet purple flowers, having a rather pleasant odor, somewhat like that of vanilla.

MARTYR, PETER, Italian historian. See ANGHIERA.

MARTYR, PETER, Protestant reformer. See VERMIGLI, PIETRO MARTIRE.

MARVIN, ENOCH M., D.D., b. Warren co., Mo., June 12, 1823; in 1841 became a minister of the Methodist Episcopal church and a member of the Missouri conference. He was elected a bishop of the M. E. church, south, at the general conference held in New Orleans in 1866. He enjoys a high reputation as a preacher, and has published a treatise on *The Work of Christ*. His official residence is at St. Louis.

MARWAR. See JODPORE, *ante*.

MARX, KARL, b. Prussia, 1818; educated at Bonn and Berlin; in 1842 went to Cologne, where he edited the *Rheinische Zeitung* for a year, when it was suppressed. He now established himself in Paris and undertook, with Arnold Ruge, the publication of an edition of Hegel's *Philosophy of Jurisprudence*, revised, and other literary labors. Having employed the press to attack Prussia, the Prussian government asked his expulsion from France, which was granted, and he settled in Brussels in 1846. He had now become interested in the International, the new socio-political organization, and devoted himself with ardor to the promulgation of advanced views concerning the rights of labor and of the laboring-class. After the revolution of 1848 he again went to Paris, his sentence of banishment being now rendered inoperative; but soon afterwards established in Cologne the *Neue Rheinische Zeitung*, in the interest of social and political liberty. He was by this time a pronounced agitator, constantly embroiled with the authorities on account of the progressive character of his ideas and the boldness of his utterances. In 1849 he committed himself in the instance of the Baden insurrection, and was expelled from Germany, retiring once more to France and thence to London, where he has resided

ever since. In 1864 he became a member of the International; and having been chosen to prepare the constitution and other initial documents of the organization, these were adopted at the congress of Geneva in 1866. In framing these important documents, Marx came in competition with Mazzini and Bakunin, both of whom prepared programmes for this occasion. The statement by Marx of the foundation and motive of the International, is precise, definite, and conclusive, without being so radical and revolutionary as the ideas of some of its members, including Marx himself; who, on the occurrence of the atrocities of the commune in Paris, did not hesitate to issue a pamphlet indorsing the action of the communists. The rules of the International, as framed by Marx and adopted by the congress of Geneva, were as follows: "Considering that the emancipation of the working classes must be conquered by the working classes themselves; that the struggle for the emancipation of the working classes means not a struggle for class privileges and monopolies, but for equal rights and duties, and the abolition of all class rule; that the economical subjection of the man of labor to the monopolizer of the means of labor, that is, the sources of life, lies at the bottom of servitude in all its forms, of all social misery, mental degradation and political dependence; that the economical emancipation of the working classes is therefore the great end to which every political movement ought to be subordinate as a means; that all efforts aiming at that great end have hitherto failed, from the want of solidarity between the manifold divisions of labor in each country, and from the absence of a fraternal bond of union between the working classes of different countries; that the emancipation of labor is neither a local nor a national, but a social problem, embracing all countries in which modern society exists, and depending for its solution on the concurrence, practical and theoretical, of the most advanced countries; that the present revival of the working classes in the most industrious countries of Europe, while it raises a new hope, gives solemn warning against a relapse into the old errors, and calls for the immediate combination of the still disconnected movements: for these reasons, the first international workingmen's congress declares that this international association, and all societies and individuals adhering to it, will acknowledge truth, justice, and morality as the basis of their conduct toward each other and toward all men, without regard to color, creed, or nationality. This congress considers it the duty of a man to claim the rights of a man and a citizen, not only for himself, but for every man who does his duty. No rights without duties, no duties without rights. And in this spirit they have drawn up the following rules of the international association: 1. This association is established to afford a central medium of communication and co-operation between workingmen's societies existing in different countries and aiming at the same end, viz.: the protection, advancement, and complete emancipation of the working classes. 2. The name of the society shall be "The International Working Men's Association." 3. The general council shall consist of workingmen belonging to the different countries represented in the international association. It shall from its own members elect the officers necessary for the transaction of business, such as a president, a treasurer, a general secretary, corresponding secretaries for the different countries, etc. The congress appoints annually the seat of the general council, elects a number of members, with power to add to their numbers, and appoints time and place for the meeting of the next congress. The delegates assemble at the appointed time and place without any special invitation. The general council may, in case of need, change the place, but has no power to postpone the time of meeting. 4. On its annual meetings, the general congress shall receive a public account of the annual transactions of the general council. In cases of urgency it may convoke the general congress before the regular yearly term. 5. The general council shall form an international agency between the different co-operating associations, so that the working men in one country be constantly informed of the movements of their class in every other country; that an inquiry into the social state of the different countries of Europe be made simultaneously, and under a common direction; that the questions of general interest mooted in one society be ventilated by all; and that when immediate practical steps should be needed, as, for instance, in case of international quarrels, the action of the associated societies be simultaneous and uniform. Whenever it seems opportune, the general council shall take the initiative of proposals to be laid before the different national or local societies. To facilitate the communications, the general council shall publish periodical reports. 6. Since the success of the working men's movement in each country cannot be secured but by the power of union and combination, while, on the other hand, the usefulness of the international general council must greatly depend on the circumstance whether it has to deal with a few national centers of working men's associations, or with a greater number of small and disconnected local societies, the members of the international association shall use their utmost efforts to combine the disconnected working men's societies of their respective countries into national bodies represented by central national organs. It is self-understood, however, that the application of this rule will depend upon the peculiar laws of each country, and that, apart from legal obstacles, no independent local society shall be precluded from directly corresponding with the general council. 7. The various branches and sections shall, at their places of abode and as far as their influence may extend, take the initiative not only in all matters tending to the general progressive improvement of public life, but also in the foundation of productive associations and other institutions useful to the working class. 8. Each member of the international association, on removing his domicile from one country to

another, will receive the fraternal support of the associated working men. 9. Everybody who acknowledges and defends the principles of the international working men's association is eligible to become a member. Every branch is responsible for the integrity of the members it admits. 10. Every section or branch has the right to appoint its own corresponding secretary. 11. While united in a perpetual bond of fraternal co-operation, the working men's societies joining the international association will preserve their existent organizations intact. 12. Everything not provided for in the present rules will be supplied by special regulations, subject to the revision of every congress."

MARY, MOTHER OF JESUS (*ante*), was of the lineage of David and probably a daughter of Heli, who stands in Luke's genealogical record first after Joseph. It is stated concerning her in the New Testament: That the home of her youth was in Nazareth; that she became the espoused wife of Joseph, a descendant of David, but before their marriage was told by the angel Gabriel, sent from heaven to Nazareth, that, by the power of the Holy Ghost, she was to become the mother of the Son of God, whom she should name Jesus, and who, raised to the throne of his father David, would reign thereon forever; that, after Joseph also had been divinely informed of the truth concerning her, she was received by him as his wife, and as such retained her virginity until the birth of Jesus, her first-born son, which took place at Bethlehem under the circumstances related by Luke; that, by divine direction, she and Joseph fled into Egypt with Jesus in order to defeat Herod's designs against him; that after Herod's death she returned with her husband and child to Nazareth; and, except during her annual visits to Jerusalem at the feast—in one at least of which, when Jesus was 12 years old, he went with her—remained with him in their home there until his public life and ministry began. After that time she is brought forward four times only in the New Testament: 1. At the marriage in Cana of Galilee, where she said to Jesus, "They have no wine." 2. At Capernaum, when Jesus was teaching a great multitude who were seated attentively around him. Mary, with his brethren, unable to force her way to him, sent messengers, who cried out to him that his mother and his brethren were standing outside wishing to see and talk with him: Jesus did not go out to her or send her any answer; but, without ceasing his instructions, said "Who is my mother and who are my brethren?" and, stretching forth his hand towards his disciples, thus answered his own question, "My mother and my brethren are those who are hearing and doing the word of God"—and with wider application still to all places and all times—"Whosoever is willing to do the will of my Father in heaven, he is my brother and sister and mother." 3. John records that Mary the mother of Jesus, with three or four of her friends, having been standing firmly by the cross, probably from the beginning of the crucifixion, Jesus, just before his death, seeing her there and the beloved disciple standing by her, said to her, "Woman, behold thy son," and to him, "Behold thy mother." After this, knowing that then all things had been accomplished, he spake his last words and uttered his final cry. Thus, amidst all its brevity, the Scripture narrative makes it clear that she who had heard the first infant cry of Jesus heard also his closing cries of anguish; and from that very hour she was comforted in what became to her a beloved home. It is related, also, that she saw the tomb in which his body was laid. 4. After the ascension of Jesus to heaven Luke records the presence of Mary with the apostles, the company of the women, and the brethren of Jesus in the upper room at Jerusalem; where she and they continued strenuously in prayer until, on the day of Pentecost, the Holy Spirit was poured upon them from on high. This is the last scriptural notice of her, and it supplies the last thing certainly known concerning her earthly life. As the inspired narrative introduces her by recording the heavenly benediction pronounced upon her, and her own magnificent song of humble, grateful praise; so it leaves her praying, in common with the rest of the disciples, for the promised blessing from on high. All beyond the above that is related of her by multitudes of writers in various ages of the church is mere legend. A tender interest and the respect due to her mysterious and sublime relation to the Christ of God, natural concerning her in the minds of all devout Christians, may have been in some degree prevented by the claims for her worship which have been advanced by large portions of the church.

MARY II., Queen of Great Britain, 1662-94; b. England; daughter of James II. and Anne Hyde, who was daughter of the earl of Clarendon. At the age of fifteen she was married to William, prince of Orange, and went with him to England in 1689. During the same year parliament declared the crown of England vacant by the abdication of James, and conferred it upon William (III.) and Mary. She is said to have been meek and gentle in her disposition, not interfering in the administration of the government, except in the absence of her husband. She died of the small-pox, and left no children.

MARY, BROTHERS OF, a Roman Catholic society founded at Bordeaux in 1817 by G. J. Cheminade, a priest, for the purpose of instruction; confirmed by the pope in 1839; introduced into the United States in 1849, where in 1875 there were 23 houses.

MARYLAND (*ante*). The first settlement within the state was that of capt. William Clayborne and his party, on Kent island, in Chesapeake bay, in 1631. George Calvert, the first lord Baltimore, explored the Virginia settlements and Chesapeake bay in 1628, and was delighted with the country; but being a Roman Catholic, and finding the church of England party had full sway, he is supposed to have returned to his possessions in

Newfoundland. In 1632, having returned to England, he obtained from the king a renewal of his Newfoundland charter, enlarged to include the territory now forming the states of Maryland and Delaware. He died before the papers were executed, and they were issued by Charles I. to his son Cecelius Calvert, second lord Baltimore, June 20, 1632. The charter conferred upon him and his heirs forever, absolute ownership of the territory, and also civil and ecclesiastical powers of a feudal sort. The name of Maryland was given to the colony in compliment to the queen, Henrietta Maria. Lord Baltimore did not emigrate to America, but made his brother, Leonard Calvert, manager of the expedition, which consisted of 200 persons. They sailed from Cowes, isle of Wight, Nov. 22, 1633, in two small vessels, the Ark and the Dove, and, after touching at several of the West India islands, landed at point Comfort, Va., Feb. 24, 1634. From this point they sailed, Mar. 3, up the Chesapeake and into the Potomac, landing at an island which they called St. Clement's, where, on the 25th, they "offered for the first time in this region of the world the sacrifice of the mass," and erected a large wooden cross as "a trophy to Christ the Savior," chanting before it on bended knees the litany of the cross. Proceeding n. about nine leagues, they entered a river which they called St. George's, and landed on its right bank, where, on Mar. 27, 1634, with appropriate religious and military ceremonies, they consecrated the spot on which they proposed to build a city, to which they gave the name of St. Mary's, of which scarcely a trace remains. The colonists were nearly all Roman Catholics and gentlemen of wealth and respectability, and the intention of lord Baltimore was to found a Catholic province upon a feudal basis, with a hereditary nobility, primogeniture, etc. This scheme was defeated by the operation of a clause in the charter which prescribed that laws could be made only with the "advice, assent, and approbation of the freemen of said province, or of the greater part of them, or of their delegates or deputies." There was a dispute between the assembly and lord Baltimore as to which of them had the right to initiate legislation, but it was settled in 1638 by the concession of the latter that the power should be exercised by the former, and in the next year the first statutes of Maryland were enacted. Clayborne and his colony on Kent island refused to acknowledge allegiance to the new government, and he and his adherents were expelled. In 1642 a company of Puritans, exiled from Virginia for non-conformity, settled at Providence, now Annapolis, and put themselves in opposition to the government. Clayborne also returned from England and regained possession of Kent island. The governor attempted in vain to dispossess him, and he and his partisans, united with the Puritans, became masters of the province, and in 1645 compelled the governor to flee into Virginia. In 1647 the governor returned with a military force and recovered possession of the province. By act of the assembly in 1639 the Roman Catholic religion was made the creed of the state. Ten years later, in 1649, an act was passed declaring that "no person or persons whatsoever, professing to believe in Jesus Christ, shall from henceforth be any way troubled, molested, or discountenanced for and in respect of his or her religion, nor in the free exercise thereof, nor in any way compelled to the belief or exercise of any other religion against his or her consent." The Puritans continuing still to be turbulent, their settlement by way of conciliation was, in 1650, erected into a separate county named Anne Arundel, and as other Puritans still arrived from England, Charles county was shortly afterward organized for their benefit. Their numbers increased to such an extent that in the next assembly they had a majority. In 1652, the royal government of England having been superseded by the commonwealth, commissioners from the mother country visited Maryland, with whom were associated Clayborne, the troublesome opponent of the government founded under lord Baltimore, and Bennett, the Puritan leader of Anne Arundel county. The authority of the English commonwealth was completely established in the colony, and Kent island was given up to Clayborne, while he also acquired Palmer island at the mouth of the Susquehanna. Gov. Stone was first removed, then reinstated. In 1654 lord Baltimore attempted to regain possession of the province and re-establish the proprietary government, but without success. The Puritans established a commission for the government of the colony, placing capt. Fuller at its head. A severe conflict ensued. Providence (now Annapolis) was attacked Mar. 25, 1655, by the proprietary party; but the assault was repulsed, the whole invading force being either killed or taken prisoners, Gov. Stone among the latter. Many of the prisoners were condemned to death, and several were executed. In 1658, however, the proprietary government was restored. Charles Calvert, son of lord Baltimore, was governor from 1662 to 1676, when the latter died and the former succeeded to his rights, and appointed Thomas Notely as governor. After the overthrow of the commonwealth in 1688, sir Lionel Copley was sent out as governor, and the capital was removed from St. Mary's to Providence, which was thereafter known as Annapolis. In 1714 Charles Calvert, the lord proprietary, died, and was succeeded by his son, Benedict Leonard Calvert, who in turn died in the following year, and was succeeded by his son Charles, a Protestant. Hart, the last of the royal governors, was retained in office. Baltimore was laid out in 1730. Frederick city was founded in 1745, and Georgetown, now in the District of Columbia, was laid out in 1751. In spite of the efforts of the British government to repress manufactures in the colonies, eight copper furnaces and nine forges were in operation in Maryland in 1749, and wine to some extent was produced. The great staple export was tobacco, which was made a legal tender in 1732 at one penny a pound. Maryland took an active part in the war which resulted in the

extinction of the French domination upon this continent. The colony was also among the first to oppose the aggressions of the British government which led to the war of the revolution. As early as 1774 the proprietary government was superseded by the authority of the people. A bill of rights and a constitution were adopted in Nov., 1776. The first republican legislature assembled at Annapolis Feb. 5, 1777, and Thomas Johnsen was the first republican governor. Maryland took a most efficient and honorable part in the revolutionary war. In 1783 congress met at Annapolis, and it was there on Dec. 23, at the close of the war, that Washington resigned his commission as general-in-chief. The federal constitution was adopted in the Maryland convention April 28, 1788 by a vote of 63 to 11.

The part of the state called the Eastern Shore, lying between Chesapeake and Delaware bays and the Atlantic, is for the most part level, and in some places swampy. Toward the n. extremity the peninsula is somewhat rocky and broken. The Western Shore, lying between Chesapeake bay and the Potomac, is in the s. portion level and sandy, and in some places marshy; but, n. of the point just above Washington on the Potomac, it is first hilly and afterwards mountainous. The main ranges of the Alleghanies pass through the narrow portion of the state extending westward between Pennsylvania and Virginia. The highest mountains are not more than 2,500 ft. high. The most beautiful scenery in the state is in a part of the Cumberland valley, in Washington co., near the Pennsylvania line. The state has on the Atlantic only 33 m. of coast and not a single good harbor; but Chesapeake bay, extending nearly through the state from s. to n., furnishes a coast-line, of nearly 500 miles. The bay is navigable through its whole extent, and has some good harbors. Baltimore, the principal city of the state, lies upon an arm of the Chesapeake called Patapsco bay. The Potomac, the principal river, is navigable for about 125 m. on the w. border. The other rivers of the state are: on the Western Shore, the Wicomico, Patuxent, South Severn, Patapsco, Bush, and Susquehanna; on the Eastern Shore, the Pocomoke, Manokin, Nanticoke, Choptank, St. Michael's, Wye, Chester, Sassafras, Elk. Many of these rivers might properly be called estuaries of Chesapeake bay. Chincoteague, Sinepuxent, and St. Martin's bays are sounds lying between the Eastern Shore and the island reefs and barriers which receive the Atlantic surf. Pocomoke sound, Tangier sound, and Eastern bay are a part of the Chesapeake, in which are numerous islands, among them Kent, Bloodworth's, Holland's, Smith's, Tangier, Halfmoon, and Assateague.

Copper, hematitic iron, galena, and manganese, are found in the central portion of the state, while bituminous coal is abundant in the n.w., and bog-iron in the east. Marble, of several varieties, and limestone and sandstone for building, are abundant in the central portion of the state, while traces of gold, nickel, and cobalt have been found in some places.

The wild animals are those usually found on the Atlantic coast. Bears are common in the w., and even the deer has not been exterminated. The fox, raccoon, and opossum are frequently met with. Wild ducks, in great variety, pigeons, partridges, snipe, and quail are found in immense numbers in the e. part of the state. Fish, of excellent quality, are abundant, and the oysters of Chesapeake bay are large and finely flavored.

The principal forest trees of the lowlands are the gum, cypress, cedar, juniper, dogwood, magnolia, holly, elm, cherry, locust, persimmon, beech, sycamore, sassafras, poplar, and red maple, while in the mountainous districts are found several species of oak, maple, walnut, hickory, ash, chestnut, birch, pine, and spruce.

The soil of the e. part of the state is a sandy loam, easily made productive by fertilization. Peaches and market-garden products grow here in great perfection. In the valleys of the central and northern portions of the state the soil is exceedingly fertile, producing large crops of tobacco, wheat, and corn. The climate is equable, subject neither to the severe cold of the north nor to the extreme heat of the south. The low and marshy lands on the Chesapeake and the lower Potomac are to some extent miasmatic, but the rest of the state is generally healthful. The mean annual temperature varies from 54° to 64°. The mercury rarely falls below zero, while the summers are little if any warmer than in Pennsylvania.

The number of farms in 1870 was 27,000; number of acres of improved farm land, 2,914,007; cash value of farms, \$170,369,684; of farming implements and machinery, \$5,268,676; amount of wages paid in the year, \$8,560,367; value of all farm productions, \$35,343,927; value of orchard products, \$1,319,405; of produce of market gardens, \$1,039,782; of forest products, \$613,209; of home manufactures, \$63,608; of animals slaughtered or sold for slaughter, \$4,621,418; of live stock, \$18,433,698; wheat produced, 5,774,503 bush.; rye, 307,089 bush.; corn, 11,701,817 bush.; oats, 3,221,643 bush.; Irish potatoes, 1,632,205 bush.; sweet potatoes, 218,706 bush.; tobacco, 15,785,339 lbs.; wool, 435,213 lbs.; butter, 5,014,729 lbs.; cheese, 6,732 lbs.; hops, 2,800 lbs.; flax, 30,760 lbs.; maple sugar, 70,464 lbs.; honey, 118,938 lbs.; wine, 11,583 gallons; milk sold, 1,520,101 gals.; sorgham molasses, 28,563 gals.; hay, 223,119 tons; number of horses, 89,696; mules and asses, 9,830; milch cows, 94,794; working oxen, 22,491; other cattle, 98,074; sheep, 129,697; swine, 257,893; horses not on farms, 12,520; cattle not on farms, 16,040. The wheat crop of 1873 has been estimated at 5,262,000 bush. and valued at over \$8,000,000; the rye crop at 309,000 bush., valued at \$247,200; corn, 10,451,000 bush., valued at \$7,106,680; Irish potatoes, 1,336,000 bush., valued at \$935,000; oats,

2,798,000 bush., valued at \$1,231,120; tobacco, 19,300,000 lbs., valued at \$1,486,100; number of horses, 104,500; of mules and asses, 10,700; of milch cows, 96,900; cattle, 125,600; of sheep, 133,200; of swine, 256,200.

In 1870 Maryland had 5,812 manufacturing establishments, employing 44,860 persons, and having capital amounting to \$36,438,729; wages paid, \$12,682,817; value of annual products, \$76,593,613. The chief lines of manufacturing industry were: refining sugar and molasses, clothing, cotton goods, flouring-mill products, boots and shoes, iron, tin, copper, and sheet-iron ware, tobacco and cigars, canned fruits and vegetables, canned oysters and fish, bread and bakery products, leather, furniture, lumber, malt and distilled liquors, bricks, printing and publishing, and copper smelting. The value of the oysters and fish canned in Baltimore in 1874 was estimated at more than \$6,000,000.

The valuation of the property of the state for 1879 was \$466,470,995. Adding to this the stock and assets of corporations, estimated at \$42,472,896, to total assessment for taxation amounted to \$509,213,891. The average amount of tobacco received and shipped for the seven years ending Sept., 1878, was 52,758 hhds. per annum, or an aggregate of 369,306 hhds. The cost of the labor of handling and inspecting was \$532,532. The estimated production of the Clearfield coal region for 1879 was about 1,600,000 tons, an increase over the previous year of 330,000 tons. The Cumberland region shipped 1,702,993 tons.

In 1875 there were in Maryland and the District of Columbia 1825 mi. of railroad, costing with their equipment \$57,318,219. The principal roads are: the Baltimore and Ohio, one of the four great trunk roads across the continent; the Annapolis and Elk Ridge; the Philadelphia, Wilmington, and Baltimore; the Philadelphia and Baltimore Central; the Northern Central; the Frederick and Pennsylvania; the Cumberland and Pennsylvania; the Western Maryland, and the Southern Maryland.

The foreign commerce of the state is confined almost entirely to Baltimore. The imports for the year ending June 30, 1874, were valued at \$29,302,311, the foreign exports at \$179,598; domestic exports, \$27,514,721. There were entered in Baltimore in 1870, from foreign countries, 355 American vessels, aggregating 124,584 tons burden, and employing 3,932 men and boys, and 345 foreign vessels, of 147,706 tons burden, and employing 5,023 men and boys. Clearances in the same year for foreign ports, 256 American vessels, of 91,652 aggregate tons and manned by 3,006 men and boys; and 348 foreign vessels, of 154,917 tons burden, and employing 4,980 men and boys. The coastwise trade embraces oysters, which are taken in immense quantities in Chesapeake bay. Not less than 15,000,000 bush., mostly canned or in jars, are shipped annually, representing a value of from \$15,000,000 to \$20,000,000. Flour, grain, tobacco, coffee, refined sugar, molasses, cotton, coal, wool, hides, leather, provisions, guano, naval stores, iron, whisky, fish and canned fruits are also among the articles which enter largely into the coastwise and internal traffic. In the year ending June 30, 1874, 1943 steamers engaged in this branch of commerce, and aggregating 1,588,958 tons, entered the ports of the state. Number of sailing vessels in the same trade, 414. The clearances of vessels in the same trade during the same year were: steamers, 2,046, sailing vessels, 348. The total of entrances and clearances was 4,781 vessels, of 3,308,703 tons burden, and manned by 94,170 men. The value of the exports from Baltimore in 1877 was \$39,815,286. The shipments of petroleum in 1876 amounted to 40,812,598 gals.

The number of national banks in 1874 was 33, with an aggregate capital of nearly \$14,000,000; and an outstanding circulation of over \$9,000,000. In 1835 there were also 13 state banks, with a capital of nearly \$4,000,000; also 5 savings banks, with deposits of over \$17,000,000, and 22 private banks. In 1878 there were 13 fire insurance companies, all in Baltimore, their premiums in the state amounting to \$439,577.29, and their losses to over \$68,000. There was also in Baltimore one marine insurance company, premiums \$24,000, losses \$10,000. There were also in the state 15 mutual insurance companies, premiums nearly \$123,000, losses \$91,000. Number of fire and marine insurance companies of other states doing business in Maryland, 101—premiums nearly \$850,000, losses over \$430,000. There were 2 Maryland life insurance companies—premiums \$104,000, payments to policy-holders nearly \$85,000; 26 life insurance companies of other states, premiums over \$1,000,000, payments \$1,023,000. The aggregate capital of all the joint-stock insurance companies of the state was \$2,728,855; assets, \$5,446,996; liabilities, \$3,816,843. The 15 mutual fire insurance companies had assets amounting to nearly \$4,000,000, while their liabilities were over \$166,000.

The debt of the state, on which interest has to be provided, is a little short of \$8,000,000. The receipts of the state treasury for the fiscal year ending Sept. 30, 1879, were \$2,126,326; in treasury before, \$204,165; total, \$2,320,491; disbursements, \$1,774,283; balance in treasury, \$556,208.

The population of Maryland has increased steadily from the first. In 1790 it was 319,728; in 1850, 583,034; in 1870, 780,894, of whom 175,391 were colored; in 1880, 934,632. The number of church organizations in 1870 was 1420, of church edifices 1389; amount of church property, \$12,038,650. The principal denominations were Baptists (including Mennonites, Tunkers, etc.), Episcopalians, Methodists, Roman Catholics, Presbyterians, Lutherans, Friends, German Reformed, and United Brethren in Christ.

The latest school statistics are those of the year ending July 31, 1878. Number of schools, 1989; pupils, 156,274; average attendance, 81,839; number of teachers, 3,071.

In Baltimore the schools were opened 10 months of the year; in other counties, a little over 8 months. Total expenditures of the year for school purposes, \$1,593,259. There are separate schools for colored children. The state normal school at Baltimore was opened in 1865, and in 1870 had an income from productive funds of \$9,500, and a library of 1250 volumes. The Howard normal school for colored pupils has an annual income of \$2,000, and a library of 1750 volumes. Normal instruction is also given in St. John's college, Annapolis. The provisions for higher education in Maryland are comparatively ample. The McDonogh bequest, from which the sum of \$800,000 had been realized up to 1870, is the foundation of a farm school for boys, now in successful operation. The Peabody institute in Baltimore, endowed by the late Mr. George Peabody with \$1,200,000, besides buildings, is intended to found a great library, support an extensive system of lectures, and a conservatory of music. The Johns Hopkins university, founded in 1874 by the late Johns Hopkins of Baltimore, and endowed by him with the sum of \$3,500,000, has already taken rank among the best universities of the country. The state agricultural college in Prince George's co. was founded upon the avails of the public lands given for the purpose to the state by the United States. It has a farm of 300 acres. It embraces a collegiate course of four and a scientific course of three years. Provision is also made for students desiring to remain but a single year. The other colleges of the state are Frederick college, at Frederick, Loyola college at Baltimore; Rock Hill college and St. Charles college at Ellicott city; St. John's college at Annapolis; Washington college at Chestertown; Western Maryland college at Westminster. Number of instructors in these institutions, 113; of students, 629. There are also several flourishing seminaries for the instruction of young ladies, and a number of professional schools. The United States naval academy at Annapolis has a library of 16,828 volumes. There are two medical schools; one of them a department of Washington university, the other of the university of Maryland. The Maryland college of pharmacy was founded in 1841; the Baltimore college of dentistry, the oldest of the kind in the world, was founded in 1840. The Maryland dental college was founded in 1873. In 1870, there were in the state 3,353 libraries, containing 1,713,483 volumes; of these, 2,037, containing 1,142,538 volumes, were private. There were 88 newspapers and periodicals—8 daily, 1 tri-weekly, 2 semi-weekly, 69 weekly, and 8 monthly.

The state institutions are the penitentiary, the asylum for the blind (white), and that for the colored blind and deaf at Baltimore; the hospital for the insane, at Spring Grove, Baltimore co.; the institution for the deaf and dumb, at Frederick; and house of refuge for juvenile delinquents, near Baltimore.

The governor of the state is elected for four years. His veto can be overcome only by a three-fifths vote of both houses of the legislature. He has a salary of \$4,500. The governor, comptroller, and treasurer constitute the board of public works. The legislature, which meets biennially, consists of a senate and house of representatives. The senators, 26 in number, one from each county, and one from each of the three legislative districts of Baltimore, are elected for four years, one-half retiring biennially. The delegates, 85 in number, are elected for two years by districts defined by the legislature after each census. Members of the legislature are paid \$5 per day during the sessions, besides mileage. The court of appeals, composed of the chief judges of the first seven circuits and a judge specially elected in Baltimore, has appellate jurisdiction only. The state is divided into 8 judicial circuits, the city of Baltimore constituting the eighth. In each circuit, except the eighth, a chief judge and two associate judges are elected; and in each county a circuit court is held, having original jurisdiction, both civil and criminal, and appellate jurisdiction of the judgments of justices of the peace. The city of Baltimore has five courts, viz.: the superior court, the court of common pleas, the city court, the circuit court, and the criminal court. A chief judge and four associate judges, constituting the supreme bench of Baltimore, designate one or more of their number to hold these several courts, and any three or more to hold general terms with limited appellate powers. Judges are elected by the people of their respective circuit for a term of 15 years, but cannot serve after they are 70 years of age. The legislature is prohibited from lending the credit of the state to any individual, association, or corporation. Amendments to the constitution must be proposed by three-fifths of each house of the legislature and ratified by the people. Once in every 20 years the people must vote upon the question of holding a convention to revise the constitution. A married woman may acquire, hold, and manage property independently of her husband, and dispose of the same as if single. Her husband must join her, however, in the execution of any deed.

The position of Maryland in the war of the rebellion was peculiar. As a slaveholding state, her sympathies were naturally to a great extent with the south; but her proximity to the north served to modify her feelings in this respect and to keep her from joining the confederacy. A considerable portion of the people were in favor of secession, but a very large majority were strongly opposed. Great efforts were made to keep the state in a neutral position, but without success. A considerable number of men enlisted in the confederate army, but of those who remained at home a majority were loyal to the union. Attempts were made in Baltimore in the first days of the war to prevent the passage of union troops through that city to Washington and the south, and several Massachusetts soldiers were killed in consequence; but the enemies of the union were

effectually subdued by the power of the national government, aided by the better portion of the citizens of the state. In spite of the circumstances above mentioned, Maryland contributed 49,780 men to the union armies. The battle of Antietam and several others of less importance were fought on Maryland soil.

The electoral votes of Maryland for president and vice-president have been as follows:—1789, 6 for Washington and R. H. Harrison of Maryland—2 vacancies; 1792, 8 for Washington and Adams; 1796, 7 for Adams and 4 for Jefferson for president; and 4 for Pinckney, 3 for Burr, 2 for John Henry, and 2 vacancies, for vice-president. 1800, 5 each for Jefferson and Burr for president; and 5 each for Adams and Pinckney for vice-president; 1804, 9 for Jefferson and 2 for Pinckney for president; and 9 for Clinton and 2 for King for vice-president; 1812, 6 for Madison and 5 for Geo. Clinton for president; and 6 for Gerry and 5 for Jared Ingersoll for vice-president; 1816, 8 for Monroe and 3 vacancies for president; and 8 for Tompkins and 3 vacancies for vice-president; 1820, 11 for Monroe for president; and 10 for Tompkins and 1 for Robert C. Harper for vice-president; 1824, 7 for Jackson, 3 for J. Q. Adams, and 1 for W. H. Crawford for president; and 10 for Calhoun and 1 for Jackson for vice-president; 1828, 5 for Jackson and 6 for J. Q. Adams for president; and 5 for Calhoun and 6 for Rush for vice-president; 1832, 3 for Jackson, 5 for Clay, and 2 vacancies, for president; and 5 for Sargeant, 3 for Van Buren, and 2 vacancies for vice-president; 1836, 10 for Harrison and R. M. Johnson; 1840, 10 for Harrison and Tyler; 1844, 8 for Clay and Frelinghuysen; 1848, 8 for Taylor and Fillmore; 1852, 8 for Pierce and King; 1856, 8 for Fillmore and Donelson; 1860, 8 for Breckinridge and Lane; 1864, 7 for Lincoln and Johnson; 1868, 7 for Seymour and Blair; 1872, 8 for Thomas A. Hendricks and B. Gratz Brown; 1876, 8 for Tilden and Hendricks; 1880, 8 for Hancock and English.

MARY OF THE INCARNATION (MARIE GUYARD), 1599–1672, b. France; married at the age of 17, a silk manufacturer named Martin, who died two years afterwards. She carried on the silk factory till her son reached the age of 12, when, Jan. 25, 1631, she became an Ursuline nun. In 1639 she settled in Canada, and founded an Ursuline convent in Quebec. She studied and became familiar with some of the Indian languages, and gave instruction to French and Indian scholars. In the political affairs of New France her judgment was highly esteemed, and she sought to impress upon the home government the necessity of controlling the mouth of the Hudson, as a means of protection against Dutch and English assaults. Her life has been written by her son, Dom Claude Martin, who became a Benedictine monk; and by Father Charlevoix, and there is a modern biography of her by the abbé Casgrain, which appeared at Quebec, in 1864.

MARY MAGDALE'NE. See MAGDALENE, MARY, *ante*.

MARY, SOCIETY OF, an association of Roman Catholic priests, established at Lyons, France, in 1815, by J. C. M. Colin; sanctioned by the pope in 1831, 1836, and 1873; introduced into the United States in 1862. The principal objects of the association are religious instruction and domestic and foreign missions.

MARYSVILLE (*ante*), a city in n. California, incorporated 1851; at the confluence of the Yuba river and the navigable Feather river, opposite Yuba city with which it is connected by a bridge. It is at the junction of the Roseville to Redding division of the Central Pacific, and the Oroville to Marysville branch, and is the largest and most important city in the state n. of Sacramento; pop. '70, 4,738. It is 116 m. from San Francisco, and 70 m. by water from Sacramento, and being at the head of navigation, surrounded by fertile agricultural and rich mining districts, is the center of an important trade. It does an extensive commission business, and is engaged largely in manufactures. It is built, mostly of brick, on a level plain, and is regularly laid out with wide streets. It is supplied with water, lighted with gas, has 4 banks, 8 churches, a convent, graded public schools and 8 private institutions of learning, a masonic hall, a public library, 5 hotels, and manufactories of carriages, woolen mills, steam flour mills, breweries, and iron foundries.

MARYVILLE, a t. in e. Tennessee, the present s. terminus of the Knoxville and Augusta railroad; pop. '70, 811. It is the seat of Maryville college, a Presbyterian institution, organized 1819, chartered 1842; open to both sexes, with a distinctive course of 4 years for ladies, and in '74, a library of 2,000 vols. The college buildings, 3 in number, costing \$50,000, are pleasantly located on an estate of 65 acres. The Society of Friends have a school here called the Freedman's college. In the town are 7 churches, 1 newspaper, flour and saw mills, a tannery, and a manufactory of woolen goods.

MASACCIO, 1401-43; b. San Giovanni Val d'Arno, Florence, in the early part of the 15th century. His real name was Tommaso Guidi, but on account of his incapacity for the duties of life he was nicknamed at an early age Tommasaccho, shortened to *Masaccio*, or *Helpless Tom*. He received his first lessons in art from Masolino da Panicale. He was employed under him in painting the frescos in the Brancacci chapel at Florence. He studied the sculptures of Ghiberti and Donatello, and learned perspective from Brundleschi. About 1430 he visited Rome, where he executed several

important works. In 1434, on the return of Cosmo de Medici from exile, he went back to Florence, and was engaged to complete the paintings of the Brancacci, left unfinished by the death of his master, Marsolino. When in Rome he painted in the church of St. Clemente a series of frescos from the life of St. Catharine. "By the easy posture of his figures, the simplicity and dignity of his draperies, and his natural and harmonious coloring," he surpassed all his contemporaries, and introduced a new era in the annals of painting. He had great readiness of invention and unusual truth and elegance of design, and was remarkably well-skilled in perspective. The frescos in the church of the Carmine at Florence were his masterpieces, and were carefully studied by Raphael and other great painters of the 15th and 16th centuries. In his epitaph, written by Annibal Cavo, it is said that Michael Angelo, who, as the teacher of other painters, was the pupil of Masaccio. His portrait by himself is in the national gallery. He was envied by his competitors, and some think that he was poisoned.

MASCARENE, JEAN PAUL, 1684-1760; b. at Castres, France, of a Huguenot family; educated at Geneva, and naturalized in England in 1706. Entering the army as lieutenant, he accompanied the British troops to Nova Scotia in 1711, and remained there nearly 50 years. He was a member of the council in 1720, and acted with the governors of Massachusetts and New Hampshire in negotiating the treaty of 1725 with the eastern Indians; was acting governor of Nova Scotia from 1740 to 1749; took part in the defense of the province against the French in 1744, and became maj.gen. in 1758. Died in Boston.

MASCOUTINS, an Indian tribe of the Algonquin family, very well known in the 17th c., and appearing constantly in the history of the early French settlers. Their habitat was the country about the northern lakes, and they were found on the Wisconsin and Fox rivers about 1669, and later on in the vicinity of the Ohio, in what is now Indiana. They appear to have been on friendly terms with the Kickapoos, Foxes, and Miamis, but quarreled with the Ottawas. In 1765 they attacked a party under the English col. Croghan on the Wabash river, and in 1777 endeavored to perform an act of treachery affecting col. Clarke, an American officer operating in their country. As early as 1712 they had united with the Kickapoos and Foxes against the French. Indeed, this tribe appears to have antagonized the whites from the time of the first settlement, inciting other tribes to join them in their warfare. By the Hurons the Mascoutins were called, in their own language, Asistacronon, the "fire-nation;" but the name Mascoutin is said to mean prairie. Since the last century the Mascoutins have died out as a separate organization, and are not now known to the U. S. government as a tribe. It is, however, probable that they are still represented on some of the reservations.

MASÈRES, or MAZÈRES, FRANCIS, an English mathematician, commonly called baron Masères; 1731-1824; b. London. His father was a physician, driven from France by the revocation of the edict of Nantes. The son was educated at Clare-Hall, Cambridge, taking the highest rank in the classics and mathematics. Having obtained a fellowship in the college, he removed to the Temple; was in due time admitted to the bar; was appointed attorney-general for Canada, and resided in Quebec till 1773. Returning to England he was appointed to the office of cursitor baron of the exchequer, which office he held till his death. He was also at different times deputy recorder of London and senior judge of the sheriff's court. He published *Elements of Plane Trigonometry*; *Principles of the Doctrine of Life Annuities*; *Scriptores Logarithmici*, a collection, in 6 vols. quarto, of writings on the subject of logarithms, the works of Kepler, Napier, Snell, etc., being interspersed with original tracts on kindred subjects; *Scriptores Optici*, a reprint of the optical writings of James Gregory, Descartes, Shooten, Huygens, Halley, and Barrow. He reprinted also a large number of tracts on English history. The expense of Hales's treatise on *Fluxions* was defrayed by him.

MASHAM, ABIGAIL, Lady, 1670-1734; b. London; daughter of a merchant named Francis Hill and Miss Jennings, an aunt of the duchess of Marlborough. Her father lost his fortune by speculation, and Abigail became waiting-woman to Lady Rivers. Soon after by the influence of the duchess of Marlborough, she was appointed a lady of the bedchamber to princess Anne. She became the confidant of the princess, and, after the latter became queen, did all she could to destroy the Marlborough influence at court. In 1707, Abigail was married, by consent of the queen, to Samuel Masham, a gentleman of the bedchamber to prince George of Denmark. This marriage brought about an open rupture with the Marlboroughs. The intrigues of Mrs. Masham finally resulted in the overthrow of the whigs, the elevation of Harley to power, and the dismissal of the duke of Marlborough. The high-church principles of Mrs. Masham recommended her from the first to Anne, who had been compelled to accept a whig government, but whose political sympathies lay with the tories. Mrs. Masham was engaged in plots to bring back the Stuarts; and she seems always to have used her position for her pecuniary advantage. Her husband was raised to the peerage in 1711. Lady Masham adhered to Bolingbroke in the quarrel between him and Oxford. After the death of queen Anne in 1714 she lived in retirement.

MASINISSA, or MASSINISSA, King of the Massylians; B.C. 239-148; a famous African prince, son of Gala. He was educated at Carthage, and in 213 B.C. induced his father to

form a league with the Carthaginians. In the same year he sailed for Spain at the head of a troop of Numidian cavalry, and displayed great zeal and valor in the war against the Romans. But the defeat of the Carthaginians at Silpia in 206 B.C., and the generosity with which his nephew, Massiva, was treated by Scipio Africanus, led him to become a faithful ally of the Romans. The crown of his country, which, after the death of his father Gala, had passed in rapid succession to his uncle Œsacles, and his cousin Capusa, was seized at this time in the name of an infant brother of the latter by Mezetulus. On hearing of this usurpation, Masinissa crossed to Africa, defeated Mezetulus in a pitched battle, and forced him to flee into the kingdom of Syphax. The Carthaginians, however, irritated at his open avowal for the Romans, incited Syphax to make war upon him. Defeated and stripped of his sovereignty, he was compelled to seek refuge near the Syrtis minor, where he bravely defended himself until the arrival of Scipio in 204 B.C. He identified his cause with that of the Romans, and his knowledge of the habits of the enemy contributed greatly to the two victories gained over Hasdrubal and Syphax. He then, after a march of 15 days, captured Cirta, the capital of Syphax. In the decisive battle of Zama which followed the arrival of Hannibal in Africa (202 B.C.), he made a brilliant charge at the head of his Numidian horse, drove the cavalry of Hannibal from the field, and was, therefore, the first to turn the tide of battle against the Carthaginians. For this service he received the greater part of the kingdom of Syphax in the following year. He now profited by the leisure which peace afforded him, devoting his attention to the organization of his government and to the civilization of his semi-barbarous subjects. But his lust of conquest was never satiated, and in his ninetieth year he marched into the territories of Carthage. Although several of his chiefs had deserted him, he adroitly circumvented the enemy, and forced them to capitulate.

MASK, THE MAN WITH THE IRON. See IRON MASK, *ante*.

MASKINONGE, a s.w. co. of Quebec, Dominion of Canada, having lake St. Peter on the s.e.; 3,231 sq.m.; pop. '71, 15,079. It is watered by the Gatineau, Du Lièvre, Maskinongé, and Du Loup rivers. The population is nearly all of French extraction or origin. Capital, Rivière du Loup.

MASON, a co. of central Illinois, having the Illinois river on the n. and the Sangamon on the s.; 580 sq. m.; pop. '80, 16,244. It presents a surface of low prairie land, very fertile. Intersected by division of the Chicago and Alton, the Springfield and Northwestern, and the Peoria, Pekin and Jacksonville railroads. It produces very largely of Indian corn, wheat, oats, butter, hay, and potatoes. Co. seat, Havana.

MASON, a co. in n.e. Kentucky, having the Ohio river on the n.; drained by the n. fork of the Licking river, and Limestone and Lee's creeks; 236 sq.m.; pop. '80, 20,469. The surface toward the n. is hilly, elsewhere more level, the soil being generally fertile. Productions are wheat, oats, rye, barley, Indian corn, tobacco, wool, butter, and hay. There are some thriving manufacturing industries prosecuted, including agricultural implements, woolen and cotton goods, carriages, and wagons. Co. seat, Maysville.

MASON, a co. in w. Michigan, on lake Michigan; 460 sq.m.; pop. '70, 3,263; watered by the Great and Little Sable, the Marquette, and the Notipeskago rivers. It is characterized by a generally level surface, and very fertile soil. Productions are Indian corn, wheat, oats, potatoes, and hay. Co. seat, Pere Marquette.

MASON, a co. in w. central Texas, drained by branches of the Colorado, the Llano, and the San Saba; 910 sq.m.; pop. '80, 2,655. The surface is mostly fertile land, but a considerable portion of it is heavily wooded. Stock raising is the principal industry. Productions are Indian corn, hay, sweet potatoes, wool, and butter. Co. seat, Mason.

MASON, a co. in w. part of Washington territory, bounded on the e. by Puget sound; 1600 sq.m.; pop. '80, 639. It is crossed by the Olympus and Coast mountains, which are separated by broad valleys of very fertile land. The principal industry is lumbering, the farm products—oats, hay, and potatoes,—being unimportant. The sound makes up into the land at many points, forming inlets which are excellent harbors. Co. seat, Oakland.

MASON, a co. in the w. part of West Virginia, having the Ohio river on the n. and w., and intersected by the Great Kanawha river and its affluents; 300 sq.m.; pop. '80, 22,293. The surface varies in character, the soil being generally fertile. There are iron ore, coal, and salt springs. The productions are Indian corn, wheat, oats, potatoes, tobacco, wool, and hay. Co. seat, Point Pleasant.

MASON, ARMISTEAD THOMSON, 1787-1819; b. Va.; son of Stevens. He graduated at William and Mary college, and became a farmer. He served through the war of 1812 as col. of a cavalry regiment, distinguishing himself at the defense of Norfolk; and he was afterward made a brig.gen. in the Virginia militia. He was elected to the Virginia house of representatives and to the U. S. senate, from which he resigned in 1817 to become a candidate for the lower house of congress, hoping by means of his unbounded personal popularity to defeat the federalist candidate, Mercer. The election was bitterly contested; but Mercer was returned by a narrow majority. The campaign gave rise to a number of heated controversies and several duels; and Mason himself was killed in a duel by his own cousin, col. John Mason McCarty.

MASON, CHARLES, 1730-87; b. England, and long employed as an assistant at the Greenwich observatory; was sent with Jeremiah Dixon to the cape of Good Hope in 1761 to observe the transit of Venus. In 1763 the same gentlemen were employed by the proprietors of Maryland and Pennsylvania to survey the boundary line between their respective possessions; a task upon which they were engaged until Dec. 26, 1767. The boundary fixed by them has since been known as "Mason and Dixon's line" (q.v.). They also, at the request of the Royal society, fixed "the precise measure of a degree of latitude in America," for which service the society granted them £200. The particulars of this work are recorded in vol. lviii. of the society's *Transactions*. In the same volume may be found *Astronomical Observations made at the Forks of the Brandywine* for the purpose of "determining the going of a clock sent thither by the Royal society in order to find the difference of gravity between the observatory at Greenwich and the spot where the clock was set up in Pennsylvania." Mr. Mason recorded in his private journal a minute account of his proceedings in America, his hap and mishaps, as well as of his scientific observations on a great variety of subjects, with interesting notices of the Indians of various tribes whom he met on his route or who rendered assistance to him and his companions. He describes with enthusiasm the beauty and grandeur of American scenery, and gives a tolerably accurate account of the valley of the Mississippi, as received by him from an aged Indian chief. Mason and Dixon returned to England in the autumn of 1768. In the following year Mason went to Cavan, Ireland, to observe the transit of Venus, his report of which appeared in the *Philosophical Transactions* for 1770. He was also employed by the bureau of longitudes to verify the lunar tables of Tobias Mayer, in which he made some corrections. At an unknown date he returned to America, and died in Philadelphia in 1787. His private journal, field notes, etc., were found among a pile of waste paper in the cellar of the government-house at Halifax, Nova Scotia, in 1860, and an account of their contents was published by Porter C. Bliss in the *Historical Magazine* for July, 1861.

MASON, EBENEZER PORTER, 1819-40; b. Washington, Conn.; graduated at Yale in 1839. He was distinguished for his early proficiency in mathematical and astronomical studies, and shortly after his graduation was appointed a member of the commission for defining the boundary between Maine and Canada. Not long after this he published *Observations on Nebulae*, a paper which was highly commended by Sir John Herschel. D. at Richmond, Va., a few days after attaining the age of 21 years. His *Life and Writings* were published by prof. Denison Olmsted.

MASON, ERSKINE, D.D., 1805-51; the youngest child of Dr. John Mitchell Mason; b. New York; graduated at Dickinson college, Carlisle, Penn., of which his father was then president; studied theology at Princeton seminary; was pastor of the Presbyterian church at Schenectady, N. Y., 1827-30; and of the Bleecker street church, New York city, 1830-51. He was stated clerk of the general assembly of the Presbyterian church, N. S., 1838-41; and acting professor of church history in the Union theological seminary, New York city. He ranked very high as an argumentative preacher, and drew many eminent men, both citizens and strangers, to listen to his eloquent appeals. A selection from his sermons, with a short memorial notice by his friend Dr. William Adams, was published soon after his death in a volume entitled *A Pastor's Legacy*.

MASON, FRANCIS, D.D., 1799-1874; b. York, Eng.; left the parish school to work at the trade of his father who was a shoemaker. While thus employed he happened to find a work on geography and astronomy, which led him to attend an evening-school where he learned algebra, geometry, and trigonometry. In 1818 he came to the United States and worked at his trade at various places at the West. In 1824 he went to Boston, and worked at Randolph and Canton, Mass. At Canton he married, joined the Baptist church, and studied languages with his pastor. In 1827 he studied at Newton theological seminary, and in 1830 was sent as a missionary to Burmah. His labors were chiefly among the Karens, among whom he had great success. In two dialects of their language he translated the Bible and other religious books, and conducted a seminary for the training of preachers and teachers. He published in 1852 a work on the natural productions of Burmah, pronounced by Dr. Hooker "the most valuable addition to the history of the fauna and flora of British Burmah." A second edition was published under the title of *Burmah: its People and Natural Productions*. He published also a grammar, chrestomathy, and vocabulary of the Pali, besides translations from the Burman, Pali, and Sanskrit: *Life of Ko-Thah-Byu, the Karen Apostle*; *A Memoir of Mrs. Helen M. Mason*; a *Memoir of San Quala, a Karen Convert*; *The Story of a Working-man's Life, with Sketches of Travel*.

MASON, GEORGE, a member of the English parliament in the reign of Charles I. He opposed the arbitrary policy of the king towards the colonies, but disapproved of extreme measures against him. He was an officer in the army of Charles II., and when defeated at Worcester in 1651, he escaped in disguise to Virginia, losing all his possessions in England.

MASON, GEORGE, 1726-92; b. at Doeg's Neck, Fairfax co., Va.; a descendant of col. George Mason who was a member of the English parliament in the reign of Charles I.; settled in Truro parish; built Gunstan hall on the Potomac, and became the intimate friend of Washington, for whom he drafted the "non-importation resolutions," which

were offered by Washington, and adopted by the Virginia assembly in 1769. One of these was that the Virginia planters should purchase no slaves imported after Nov. 1. of that year. At a meeting of the people of Fairfax, July 18, 1774, he offered 24 resolutions on questions at issue between Great Britain and the colonies, which were sanctioned by the Virginia convention in August, and reaffirmed by the continental congress in October of the same year. In 1775 he was a member of the Virginia convention. In May, 1776, he drafted the declaration of rights and the plan of government, which were adopted by a unanimous vote. He was a member of the continental convention in 1777, and of the constitutional convention in 1787, taking decided ground against all measures tending to perpetuate slavery. He disapproved of the proposed instrument and refused to sign it, declaring that it would "result in a monarchy or a tyrannical aristocracy." He was a member of the convention called to consider the federal constitution, and with Patrick Henry, opposed it, insisting on 20 alterations. Some of these were afterwards adopted by congress and the states. He was elected the first United States senator from Virginia, but declined. His statue stands with those of Washington, Jefferson, Henry, and other distinguished Virginians in front of the state capitol at Richmond.

MASON, JAMES MURRAY, 1798-1871, b. Va.; a grandson of George. He began the practice of law at Winchester, in 1820; and six years later took his seat in the Virginia legislature, to which he was twice re-elected. In 1837 he was elected to congress, but at the end of his term, he refused a re-nomination, and resumed the practice of his profession. In 1847 he was appointed to fill a vacancy in the U. S. senate, to which he was elected in 1849, and again in 1855. He occupied a conspicuous position in the senate, where he was for a number of years, chairman of the committee on foreign affairs. Among the important measures with which he was connected, may be mentioned the fugitive slave law of 1850, which was drawn up by him. He was an ardent secessionist, and was expelled from the senate in 1861. He was soon appointed a commissioner for the confederate states to England and France, and on Nov. 8, 1861, with his fellow commissioner John Slidell, was taken off the British mail steamer, *Trent*, by captain Charles Wilkes. He was imprisoned in fort Warren, Boston, till Jan. 2, 1862, when he was surrendered to the English government. During the remainder of the war, he lived for the most part in Paris, still representing the confederate government. At the close of the war, he came to Canada, and after spending three years there, went to Virginia.

MASON, JEREMIAH, LL.D., 1768-1848, b. Conn., son of Jeremiah Mason, a col. in the revolutionary war. He graduated at Yale, in 1788, and was called to the bar in 1791. He began the practice of his profession at Westmoreland, N. H., near Walpole, whither he removed in 1794. Three years later, he removed to Portsmouth, which was his home for the next 35 years. He was soon recognized as the head of his profession, in a state whose bar was then, and perhaps since, unequalled in this country, and which could number among its members Ezekiel and Daniel Webster, and Jeremiah Smith. He held the office of attorney general for the state in 1802, and was elected to the U. S. senate, in 1813. He became one of the foremost debaters in that body, his speech delivered in 1814, on the embargo, being especially powerful. But he was, before everything else, a great lawyer, and he soon tired of politics, and in 1817, resigned his seat in the senate, and resumed the practice of his profession. He afterwards served, for a number of terms in the New Hampshire legislature, where his service had little connection with politics, but was given largely to revising and codifying the state laws. It was he who framed for the legislature its report on the Virginia resolutions with regard to the repeal of the Missouri compromise, and the state enjoyed in many other directions the benefit of his legal learning and sagacity. But he felt the need of a larger field for the display of his talents, and in 1832, removed to Boston, where the Websters had long preceded him. He was employed in Boston upon many great cases, and maintained till his age compelled him to retire, the high reputation which he had won elsewhere. His was one of the most acute legal minds in America. He was a greater lawyer than Webster, however inferior to him in other respects; and Webster, who had abundant occasion to conceive a respect for Mason's abilities, while they were both engaged in the trial of causes at the New Hampshire bar, does not exaggerate in giving his estimate of Mason: "Of my own professional discipline and attainments, whatever they may be, I owe much to that close attention to the discharge of my duties, which I was compelled to pay for 9 successive years, from day to day, by Mr. Mason's efforts and arguments at the same bar." "The characteristics of his mind," he adds, "as I think, were real greatness, strength, and sagacity. He was great through sound sense and sound judgment."

MASON, JOHN, d. 1635; b. at Lynn Regis, Norfolk, England, and served in 1610 in the navy; in 1616 went to Newfoundland as governor of the colony, and in 1620 published a description of the country, to which he added a map in 1626. He explored the New England coasts in 1617; in 1622 obtained a grant of a region called Mariana, now the n.e. part of Massachusetts; in the same year, in connection with sir Ferdinand Gorges, procured a patent for the province of Maine; and in 1623 sent a colony to the Piscataqua river. In 1624-29 he was treasurer and paymaster of the English armies in the Spanish war. In 1629 he obtained a patent for the New Hampshire colony, and with Gorges took

one also for Laconia, a region including lake Champlain. He held various honorable positions in England, in 1635 being a judge in Hampshire and vice-admiral of New England. His rights in New Hampshire were sold in 1691 to governor Samuel Allen. Died in London in Dec., 1635.

MASON, JOHN, 1600-72, b. England; served under sir Thomas Fairfax in the Netherlands; emigrated in 1630 to Dorchester, Mass.; removed in 1635 to Connecticut, and aided in founding Windsor. A party of whites having been massacred by the Pequot Indians at Wethersfield in 1637, he was appointed by the general court to attack the Pequots at the mouth of the Pequot river. With a force of 90 English and 70 friendly Mohegans under Uncas, he landed, May 23, in Narragansett bay, near point Judith. Aided by 200 Narragansetts under Miantonomah he marched to the two principal forts of the Pequots near the Mystic river. Though nearly deserted by his frightened allies, he attacked the nearest fort, May 26, 1637, but, unable to dislodge the Indians, he set fire to their wigwams, the whites and their allies surrounding the forts to prevent escape. Between 600 and 700 Pequots perished, seven were captured, and seven escaped; two of the English were killed and twenty wounded. He then pursued the remnant of the Pequots toward New York, killed and captured many, distributing those that remained among the Mohegans and Narragansetts. The peace now secured with the Indians continued for 40 years. After the Pequot war Mason removed to Saybrook, at the request of the inhabitants, for the defense of the colony, and in 1659 removed to Norwich. He was a maj. of the colonial forces for 30 years, deputy-governor of Connecticut 1660-70, and a magistrate 1642-68. He prepared, at the request of the general court of Connecticut, an account of the Pequot war, which was reprinted by Increase Mather in 1677.

MASON, JOHN MITCHELL, D.D., 1770-1829; b. New York; graduated at Columbia college, 1789, and continued his studies at the university of Edinburgh; after his father's death in 1792 succeeded him as pastor of the Associate Reformed church (Presbyterian); in 1804 became professor of theology in a seminary of which he was one of the founders. In 1811 the trustees of Columbia college, in order to enjoy the benefit of his eminent talents, created for him the office of provost, which he filled until 1816, taking charge of the senior class, and giving new life to the lecture-room; from 1821 to 1824 he was president of Dickinson college at Carlisle, Penn., and during that time connected himself with the Presbyterian church. As a pulpit orator he had great power and fervor; his eloquence is one of the traditions of the city of New York. When Robert Hall heard him deliver his celebrated discourse on "Messiah's Throne," he is said to have exclaimed, "I can never preach again." His aspect was on a scale of grandeur corresponding to the majesty of the mind within. Tall, robust, straight, with a head modeled after neither Grecian nor Roman standards, yet combining the dignity of the one and the grace of the other; with an eye that shot fire, especially when under the excitement of earnest preaching, yet tender and tearful when the pathetic chord was touched; with a forehead broad and high, and a mouth expressive of decision, Dr. Mason stood before his audience a prince of pulpit orators.

MASON, JOHN Y., LL.D., 1799-1859; b. Va.; educated at the university of North Carolina, and admitted to the bar. After serving for a number of terms in the Virginia assembly, he entered congress in 1831, and remained till 1837, when he was appointed judge of the U. S. district court for Virginia. He continued to hold that office till 1844, when president Tyler made him secretary of the navy. He entered the cabinet of president Polk as attorney-general, but was transferred in 1846 to the department of state. In 1854 president Pierce made him minister to France, where he remained till his death.

MASON, LOWELL, 1792-1872; b. Mass.; commenced his musical career in Savannah, where he was appointed choir leader in 1812. In 1821 he published a volume entitled *Handel and Haydn Collection of Church Music*, which attracted considerable attention. He removed to Boston in 1827, and devoted himself to the instruction of classes in vocal music; introducing musical instruction into the public schools of Massachusetts; and securing the establishment of the Boston academy of music. He made numerous compilations of glee-books, text-books, collections for family and Sunday use, etc. In 1837 Dr. Mason visited Europe, to make himself thoroughly familiar with the continental methods of musical instruction. In 1855 he was made doctor of music by the university of New York, the first degree of that character conferred in America. His chief claim to distinction rests on his efforts to make vocal music popular among the masses and on his hymn tunes, several of which are in constant use by all denominations in the United States, and have in some instances been given by the severer musical criticism of the present day a rank scarcely less high than that accorded them by continuous popular favor.

MASON, RICHARD B., d. 1850; b. Va.; a grandson of George. He entered the army as a lieut. in 1817, was promoted to a captaincy in 1819, and served through the Black Hawk war in the dragoons. He was made a col. in 1846 and was at the head of the American troops in California, of which he was for a time military and acting civil governor. In recognition of his services in the Mexican war, he was brevetted brig.gen., May 30, 1848.

MASON, STEVENS THOMSON, 1760-1803; b. Va.; a son of Thomson. He was educated at William and Mary college, but entered the American army, in which, while hardly 20 years of age, he held the rank of col.; and he was a gen. at its close. He served for a number of years in the Virginia house of delegates, and was a conspicuous member of the constitutional convention of 1788. From 1794 till his death, he was a member of the U. S. senate.

MASON, STEVENS THOMSON, 1811-43; b. Va.; grandson of Stevens Thomson. He received his education in Kentucky, where his father, gen. John T. Mason, had settled. In 1831 he was appointed secretary of the territory of Michigan, which had just been organized; and when its governor, Lewis Cass, entered Jackson's cabinet as secretary of war, Mason became acting governor of the territory. He continued to serve in this capacity during the dispute in regard to the proper boundary between Ohio and Michigan; and the final peaceful settlement of the controversy was, in no small degree, rendered possible by his tact and moderation. As soon as Michigan was erected into a state in 1835, Mason was unanimously chosen governor; and he was honored with a re-election, retiring in 1839. The last three years of his life were spent in New York, where he had begun to practice law.

MASON, THOMSON, 1730-85; b. Va.; a brother of George. He read law in the temple, London, after which he returned to Virginia, and made his home in Loudon county. He took a conspicuous part in the revolutionary movement in Virginia, and in 1774 published a series of papers, advocating resistance to the claims of England. In 1778 he was appointed to a seat upon the state supreme court, then just established, and soon after he served upon the commission to codify and revise the state laws. In 1779 and again in 1783, he was chosen a member of the state legislature.

MASON, WILLIAM, an English divine and poet; 1725-97; educated at Cambridge, and admitted fellow of Pembroke college in 1747; became rector of Aston in Yorkshire, and chaplain to the king; subsequently was for 32 years precentor and canon residentiary of the cathedral of York. He published a *monody* to the memory of Pope; *Isis*, an elegy; the dramatic poems of *Elfrida* and *Caradocus*. In 1756 he published a small collection of odes as an imitation of Gray. In 1763 he produced some fine elegies. He is considered in point of morality as the purest of poets, and one of the warmest friends of civil liberty. In 1772 was published the first book of a descriptive poem entitled *The English Garden*; and the remainder in 1781. In 1775 he published the poems of Gray, with a memoir of his life and writings prefixed; in 1783 an elegant translation of Dufresnoy's Latin poem on the art of printing, and *An Historical and Critical Essay on English Church Music*. In addition to his poetical reputation, he was skilled in painting and music. A tablet to his memory is placed in the poets' corner in Westminster abbey. A complete edition of his poems was published in York in 1771.

MASON, WILLIAM, b. Mass., 1829, son of Dr. Lowell Mason. He studied music in Europe with Hauptmann, Moscheles, and Liszt, and returned to America in 1854, after having appeared as a piano performer at Prague, Frankfort, Weimar, and London. His first concert in this country was given at Boston, which was followed by several very successful concert tours. He then settled in New York, devoting himself to teaching and composing. From 1855 to 1868 he played the piano in connection with the well-known string quartet composed of Theodore Thomas, Joseph Mosenthal, George Matska, and Carl Bergmann. In 1872 he received from Yale college the degree of doctor of music. He has held several prominent positions as organist, and many of his compositions have been republished in Europe.

MASON AND DIXON'S LINE (*ante*) originated in the difficulties which occurred in tracing the boundary line of a tract of land granted to William Penn in 1681. This land lay w. of the Delaware and n. of Maryland, and a part of its southern boundary was defined to be "a circle drawn at 12 m. distant from Newcastle northwards and westwards into the beginning of the 40° of northern latitude." Later, Penn received another grant, and, his agent being unable to agree with the authorities in America as to the just boundary, he came to this country himself in 1682 to establish his claim and take possession of his land. He was opposed by lord Baltimore, the matter was referred to the committee of trade and plantations, a change in the reigning monarch of England took place, and it was not until 1760 that the final deed was issued to the heirs of Penn, closing the controversy. But even then the question of surveying the disputed territory with a view of defining the boundary-line opened new disagreement; and it was to arrange this that Charles Mason and James Dixon, "mathematicians and surveyors," were mutually agreed upon by the contestants, Thomas and Richard Penn, on the one part, and lord Baltimore, the great-grandson of Cecilus, the first patentee, on the other, "to mark, run out, settle, fix, and determine all such parts of the circle, marks, lines, and boundaries as were mentioned in the several articles or commissions, and were not completed." The two surveyors commenced their work in 1764, and did not finish it until 1767; the delay being partly owing to Indian troubles, involving negotiations with the Six Nations in their settlement. The line, as finally drawn, has been popularly supposed to have been the dividing line between the free and the slave states; but this is an error, as slavery existed throughout Delaware, which is both e. and n. of the line,

until abolished by the 14th amendment to the constitution. To this line is owing the peculiar tract of land known as the "pan-handle," where a part of Virginia runs up between Pennsylvania and the Ohio river.—Very little is known of the two "surveyors of London," as they were styled. Mason was an assistant of Dr. Bradley at the royal observatory at Greenwich; both were members of the American philosophical society; both were sent by the royal society to the cape of Good Hope to observe the transit of Venus in 1769. Dixon died in Durham, England, in 1777; and Mason died in Pennsylvania in 1787.

MASONS, FREE (*ante*). The claims of freemasonry to origin in a period of remote antiquity have recently received a certain amount of support. In the process of making the necessary preparations for the removal of the Egyptian obelisk at Alexandria to its new site at New York, in 1880, certain discoveries were made which were alleged to have a distinct masonic reference. These discoveries included a number of objects masonic in character, and the fact that the foundations and position of the monolith had been established according to rules which form a part of the traditions of the order. In regard to this whole matter of antiquity, there is nothing in the traditions of the order so exceptionally remarkable as to make any special demand on our credulity. Men have been constituted after the same fashion from the beginning of time; and, given the same motive and the same or a similar environment and like opportunities, they may be assumed to act in the same way. The organization of the craft-guild in northern and central Europe as early as the 7th century is a sufficient illustration of the tendency to association among men, and particularly among the laboring or "craft" classes, to prove this. We know that among the Greeks, and Romans also, such association occurred in various directions, and there is no sound reason for disbelief in the possible combination of the architects and master-builders of Rome in the time of Numa Pompilius, as is claimed by the masons. Whether we are to accept the traditions which point to Solomon's temple, and refer to the times of the ancient Egyptians for the period of the foundation of the order, is a matter not of vital importance; though the same reasoning that answers in the case of Rome is equally sound in that of Egypt. Certainly when one contemplates the pyramids, Memphis, Thebes, Denderah, and the other ruins of marvelous structures built by the Egyptian masons and architects, there is nothing absurd in the supposition that then, as now, associated effort might have been concerned; and that the associations concerned might have organized on some such basis as is involved in the traditional history of freemasonry. The Roman colleges of builders are said to have been created by Numa Pompilius in 715 B.C. In 52 A.D. the corporations of constructors were established in Great Britain. In A.D. 290 Carausius, commander of the Roman fleet, is said to have renewed the ancient constitution and privileges of the Roman colleges, with a view to gaining the favor of the builders, who were a very powerful association: the architect Albanus, sent to Great Britain as an inspector of the constructors, or masons, is credited with having been the first Christian martyr in Britain, he having been beheaded for preaching the doctrine of Christ. His rank of inspector became later on that of grand master. At this period, which was in the latter part of the 3d c., the city of York contained the most important lodges or colleges of builders in Britain. In the 4th and 5th centuries corporations of artists and operatives, so called, were instituted in Great Britain, and manuscript copies of their statutes are said to be still in existence in certain of the French libraries. In 614 pope Boniface IV. conferred by diploma upon the masonic corporations the exclusive privilege of erecting all religious buildings and monuments, and made them free from all taxation. The civil wars of this period paralyzed the development of the masonic corporations, and they took refuge in the monasteries, which thus became the schools of architecture—sending forth such architects as St. Aloysius, bishop of Noyen; St. Ferol, of Limoges; Dalmac, bishop of Rhodes; and Agricola, of Chalons (659-700). In some of the Anglo-Saxon documents which still exist in the libraries of England the masonic fraternities are styled "freemasons." In 925 A.D. Athelstan convoked all the masonic lodges of Great Britain; the order was re-organized; and the city of York was established as the seat of the grand mastership: 34 years later the archbishop of Canterbury, St. Dunstan, was named grand master of the fraternity. In 1040 Edward the Confessor assumed the protectorate of the order; and in 1100 king Henry IV. accepted the grand mastership. In 1145 the freemasons from upper Normandy were called to the aid of the builders of the cathedral of Chartres, and were publicly blessed by the archbishop of Rouen; they made a triumphal entry into the city of Chartres. In 1250 the grand lodge of Cologne was instituted; and in 1275 a masonic congress was convoked to hasten the building of the cathedral of Strasburg. The monopoly granted by pope Boniface IV. was confirmed by diplomas issued by pope Nicholas III. in A.D. 1277; and these were again confirmed by pope Benedict III. in 1334. In 1260 Germany had five grand lodges, Cologne, Strasburg, Bern, Vienna, and Magdeburg, upon which were dependent the local lodges of France, Belgium, Hesse, Swabia, Thuringia, Switzerland, Franconia, Bavaria, Austria, Hungary, and Styria. In the 15th c. the assemblies of freemasons in England were suppressed by act of parliament, but a few years later Henry VI. was initiated into the fraternity, his example being followed by nearly all the gentlemen of his court. In 1452 a new constitution was compiled at Strasburg, and in

1459, '64, and '69 masonic congresses were held in Ratisbon and Spire. A grand lodge of master masons was held in London in 1502, presided over by the king, Henry VII., who laid the corner-stone of the chapel of Westminster which bears his name. A congress of masons was held at Basle in 1563, and at Strasburg in 1564; and in 1607 king James I. of England proclaimed himself protector of the freemasons. In 1663 a general assembly of English masons took place at York, and was presided over by king Charles II. In 1666, at the time of the great fire in London, there were but seven lodges of masons in the city; and in 1703 these had declined to four, though Sir Christopher Wren, the aged grand master, exhibited great zeal in endeavoring to foster the progress, and increase of the order. In France, in 1539, Francis I. suspended all the corporations of workmen, and freemasonry became extinguished in that country, not to be revived until 1721. It is claimed by the masons that this act of Francis I. resulted in the abandonment of the practice of Gothic architecture, and the substitution for it of the *renaissance* style, of which school were the architects Delorme and Bullant, who built the Tuileries in 1577; Lescot and Goryon, the architects of the Louvre, built in 1571; Blondel and Bullet, who constructed the gates of St. Denis and St. Martin, of Paris, between 1674 and 1686; Mansart, who built the palace of Versailles and the Invalides in 1700 and 1725; and J. Soufflot, who erected the Pantheon; none of these architects were freemasons. It was in the year 1703 that the English masons forming the lodge of St. Paul, having completed the erection of the cathedral, passed the resolution which opened the doors of the order to others than practical masons and builders. This resolution reads as follows: "Resolved, that the privilege of masonry shall no longer be confined to operative masons, but be free to men of all professions, provided that they are regularly approved and initiated into the fraternity." This important decision entirely changed the nature of the society, and transformed it into the body as we find it to-day. In 1717 the grand lodge of London was constituted, and put into execution the resolution of 1703: see MASONS, FREE, *ante*. In 1864 the three grand lodges of Great Britain controlled 109 provincial grand lodges, with 1597 operative lodges under their jurisdiction, which extended their connections to every part of the globe. Freemasonry was introduced into Denmark, in 1783; France, 1721; in Sweden, in 1736; Russia, in 1731; Belgium, 1721; Holland, 1725; Germany, 1737; Switzerland, 1737; Italy, 1729; Portugal, 1735; Spain, 1727. It is claimed that a lodge was established in Halifax, Nova Scotia, as early as 1750, the first in the British dominions in America; but this statement is not fully credited. Of the five provinces which comprise the dominion of Canada, Prince Edward Island alone has its lodges subject to the grand lodges of Great Britain. The first lodge in the New England colonies was opened in Boston in 1733. After the war of independence, grand lodges were organized in all the states. The statistics of the order in America showed the following membership in the different states in 1880, including also the British provinces, or Dominion of Canada, and New Mexico:

Alabama.....	7,925	Indiana.....	26,665	Montana.....	664	Quebec.....	2,873
Arkansas.....	8,293	Indian Territory..	343	Nebraska.....	3,117	Rhode Island....	4,327
British Columbia..	312	Iowa.....	18,486	Nevada.....	1,508	South Carolina....	6,531
California.....	12,281	Kansas.....	6,687	New Brunswick....	2,317	Tennessee.....	17,053
Canada.....	17,418	Kentucky.....	18,098	New Hampshire....	7,688	Texas.....	17,340
Colorado.....	1,569	Louistana.....	5,456	New Jersey.....	12,084	Utah.....	370
Connecticut.....	14,968	Maine.....	19,252	New Mexico.....	169	Vermont.....	7,978
Dakota.....	281	Manitoba.....	324	New York.....	75,918	Virginia.....	9,930
Delaware.....	1,235	Maryland.....	5,349	North Carolina....	11,471	Washington.....	902
Dist. of Columbia..	2,701	Massachusetts....	25,926	Nova Scotia.....	3,424	West Virginia....	3,385
Florida.....	1,842	Michigan.....	25,624	Ohio.....	28,836	Wisconsin.....	10,703
Georgia.....	12,491	Minnesota.....	7,061	Oregon.....	2,514	Wyoming.....	390
Idaho.....	358	Mississippi.....	9,849	Pennsylvania.....	36,948		
Illinois.....	38,610	Missouri.....	24,296	Prince Ed. Island..	566	Total.....	582,556

MASORA, or MASSORETH. See MASSORA, *ante*.

MASOVIA, or MAZOVIA, a district of Poland, bounded n. by Plock, e. by Podlachia, s. by Sandomir, w. by Kalisch and Posen; 7,646 sq. miles. During the early period of the independence of Poland it was a duchy on both sides of the Vistula which flows through it. In 1815 it formed a palatinate in the Russian kingdom of Poland with Warsaw as its capital. It is now under Warsaw, which forms a distinct government.

MAS'SA, a t. in the province of Carrara-Massa, central Italy; pop. '74, 18,031. It is on the Frigida, and commands a fine prospect of the sea on the w., and of picturesque and fruitful hills on the n.e. The climate is almost unrivaled in Italy for mildness and salubrity. The oldest part of the town is on a hill; the newest part, with its fine buildings and spacious streets and squares, on the plain below. Among the buildings is a national palace, a noble structure, built by the princes of the house of Cybo. The history of the town is traced back to the 9th century. It was then and for a long time subject to the republic of Lucca, but in the 15th c. the Cybo family became its feudal lords.

MASSAC, a co in s. Illinois; has the Ohio river for its s. boundary, separating it from Kentucky; 230 sq. m.; pop. '80, 10,443—9,900 of American birth. 1703 colored. Forests of oak, elm, maple, ash, hickory, and the tulip tree diversify its surface, and the cypress grows luxuriantly in its swamps. An under-stratum of carboniferous limestone is the foundation of the soil, which, in land not subject to overflow, is fertile, and

produces a large yield annually of tobacco, sweet-potatoes, butter, honey, and sorghum, and all varieties of grain and fruit. Cattle, sheep, and swine are raised, and the vine is cultivated to some extent. Its mineral products are coal and lead. Among its industries are the manufacture of wagon materials, tobacco, and snuff. It has flouring mills, potteries, and ship-yards on the Ohio river. Seat of justice, Metropolis.

MASSACHUSETTS (*ante*). There is reason to believe that portions of south-eastern Massachusetts, including the islands of Nantucket and Martha's Vineyard, were discovered by the Norsemen not far from 1000 A.D., and that various settlements were made in the next 300 years, none of which, however, gained permanence. In 1497 John and Sebastian Cabot again discovered the Massachusetts coast, and the English claimed it on that account. In 1602 Bartholomew Gosnold and 22 English colonists made a settlement on the Elizabeth islands, between Buzzard's bay and Vineyard sound, now constituting the township of Gosnold in Dukes co.; but it was in a short time abandoned. There were other expeditions to the coast in subsequent years, but the Plymouth colony was the first that proved successful. On Sept. 6, 1620 (O. S.), this colony, composed of about 100 English, who had sought exemption from religious persecution in Holland, having embarked from Deift Haven, set sail from Plymouth, England, in the *Mayflower*, of 180 tons, to find a home in America. On Nov. 9 they reached cape Cod, and anchored in the roadstead off Provincetown. An exploring party was sent in search of a suitable place to found a settlement, and the colonists landed at Plymouth, Dec. 22 (N. S.). Before landing they drew up and subscribed a compact or frame of government for the new settlement, and elected John Carver governor for one year. In four months nearly one-half the colonists died from exposure to the cold and the lack of wholesome food. Shortly after landing they entered into a treaty of peace with the Indian chief Massasoit and his tribe, which remained unbroken for a long time. Through the influence of capt. Miles Standish the disputes with other tribes were soon settled. In the spring of 1621 the *Mayflower* returned to England, and soon afterwards governor Carver died and was succeeded by William Bradford, with Isaac Allerton as assistant. During the next two years the colonists endured many privations, but in 1623 they were relieved by a bountiful harvest. The plan of property in common, which they adopted at first, was now abandoned. In 1622 a Mr. Weston, of London, who had been connected with the Plymouth colonists, obtained a patent and founded a new settlement in Wessagussett, now Weymouth. The Plymouth colony failed to obtain a patent, and was forced to carry on its government independently of the royal sanction. This they did, however, with perfect success, upon a plan not unworthy of the democracy of a later time, since the right of the people to govern themselves was fully recognized. In 1628 an expedition, organized by an English company, and commanded by John Endicott, landed at Salem. The company had obtained a grant of the territory lying between the Atlantic and Pacific, and extending to a point 3 m. s. of the river Charles and 3 m. n. of the river Merrimac. After persistent efforts a royal patent was obtained for "the company of the Massachusetts bay," and the associates were constituted a body politic, with a governor, deputy, and 18 assistants, to be annually elected, and a general assembly of the freemen, with legislative powers, to meet four times in a year, or oftener if necessary. In 1629 the colony was reinforced, and the government and patent of the company were transferred from London to New England. The old officers resigned, giving place to others chosen from among those who were about to emigrate, John Winthrop being elected governor. From this time the colony grew rapidly, receiving an accession at one time of about 1000 persons, who came over in 17 vessels. Charlestown, Boston, Watertown, Dorchester, Roxbury, Mystic, Salem, Saugus (Lynn), and other places were at this period selected as sites for settlements. The colony for a time endured great hardships, losing many of its members by death, while others returned in discouragement to England. But new emigrants came to take the places of the departed, and still the colony grew. A spirit of religious intolerance, which was characteristic of all parties in those times, and which was partly the product of the bitter persecutions from which the colonists had fled, manifested itself in the banishment of Roger Williams and Anne Hutchinson, and a general persecution of the Quakers. Some disputes between the magistrates and people as to their respective powers, caused no little commotion. At first the colonists were allowed to manage their affairs without the interference of the home government; but at length they were suspected by the crown of a design to make themselves independent, and an attempt was made to annul their charter, a commission for their government being formed with archbishop Laud at its head. An order was issued to the colony to surrender its charter, but the settlers found a way to avoid a compliance, and measures were adopted to fortify Boston, Charlestown, and Dorchester against a possible assault. The colonists found their best protection, however, in the political agitations of the mother country, which so absorbed the attention of the government that it had no time to prosecute its schemes in America. The restoration of the Stuarts created fresh troubles for the colony, but at length, in 1662, the king confirmed the charter and made a conditional promise of amnesty for past political offenses. He insisted, however, upon his right to interfere in the affairs of the colony, demanded the repeal of all laws derogatory to his authority, required the complete toleration of the church of England, the taking of an oath of allegiance, and

the administration of justice in his name. To these demands some of the colonists were disposed to yield for the sake of peace, while others steadily resisted them. Commissioners were sent over from England to investigate the affairs of the colony, but, being unable to accomplish anything, they were finally recalled. In 1643 the colonies of Massachusetts Bay, Plymouth, Connecticut, and New Haven entered into an alliance for mutual protection, which lasted 20 years and was superseded by a still closer confederation. In 1675 king Philip's war broke out, lasting more than a year, and subjecting the colonists to great loss of life and property. No less than 12 or 13 towns were destroyed by the Indians, 600 houses were burned, one in 20 of the men of the colony were killed on the field, and a debt of \$500,000—an enormous sum for that day—was incurred. The troubles with the king continued; Massachusetts lost her jurisdiction over New Hampshire, and retained possession of Maine only by purchase. In 1684 the difficulties with the crown being still unsettled, the charter was declared forfeited. Joseph Dudley was appointed president of Massachusetts, the general court was dissolved, and a royal commission superseded the government under the charter. In 1686 Dudley was superseded by sir Edmund Andros, whose arbitrary proceedings have left a blot upon his name. In 1689 the men of Boston, aided by others from the country, rose in arms against him, put him and others in prison, reinstated the former magistrates, and restored the general court to its authority. Plymouth joined in the revolt, imprisoning the agent of Andros, and reinstating the former governor. A new charter, uniting the Massachusetts and Plymouth colonies, was granted in 1692. Under this charter the governor, lieutenant-governor, and secretary were appointed by the king. Sir William Phips was the first governor, and it was at about this period that the witchcraft delusion which had long held sway in Europe, broke out in the colony, blotting its history with a record of superstition and blood. It is to the honor of Massachusetts, however, that it so soon awoke from this inherited delusion; long after the evil had been exposed and forsaken here, the courts of European countries were still sentencing "witches" to death. There were fresh troubles with the Indians, which did not terminate till 1725.

Massachusetts was deeply involved in the struggles between England and France for ascendancy in the new world, which did not finally cease until the union of Canada to England and of Louisiana to Spain in 1763. Then followed the controversies with England, which led step by step to the war of the revolution, which ended in the recognition of the United States as an independent nation. In these controversies Massachusetts bore a leading part, as she did in the war itself, and in laying the foundations of the new republic. The British government imposed the most onerous taxes upon the colonists, and sought to collect them by force, in the face of the most earnest remonstrances. The colonists at length refused to submit to exactions which they regarded as subversive of the fundamental principles of English liberty. They insisted that they could not be justly taxed while they were excluded from representation in parliament, and upon this issue they were willing, if necessary, to go to war. The commerce of the colony, moreover, was hampered by the most arbitrary and irritating restrictions. The spirit of liberty, which the colonists had brought with them from their old home, had been developed in their self-governing church and state until, in the hearts of their children, it had grown too strong to be subdued, and found expression in every form of indignant remonstrance—till at last blows were substituted for words. The other colonies were appealed to—and not in vain—for sympathy and support. The first blood in this contest was shed in the Boston massacre, a street riot in 1770; next came the destruction of the tea in Boston harbor in 1773, the opposition to the port bill in 1774, the representation of the colony in the general congress, the seizure of the arsenal at Charlestown, etc., and finally in April, 1775, the bloody contest at Lexington and Concord, which was the actual opening of war.

The surface of the state is mostly uneven, and in some places rough and mountainous. Two separate ranges of the Green mountains, the Taghkanic and the Hoosic, enter the western part of the state from the n., and, with their outlying hills, present some of the most picturesque scenery to be found in New England. The Taghkanic is the highest and most westerly of these ranges, its principal elevations being Saddle mountain, or Greylock, 3,505 ft., and Mt. Everett, 2,624 ft. in height. The Hoosic range, in its highest part, does not rise above 1600 feet. Near the western bank of Connecticut river are several isolated peaks, Mt. Tom and Sugarloaf being the most prominent, while on the eastern side of the river, near South Hadley, stands Mt. Holyoke, in solitary beauty, commanding an extensive and lovely prospect. Another isolated mountain is the Wachusett, in Princeton, near the center of the state, which has an elevation of 2,018 feet. That portion of the Connecticut valley which lies within the boundaries of the state is remarkable for beauty of scenery and fertility of soil. The eastern portion of the state is less broken; some of it, including cape Cod, is level and sandy. The Connecticut river runs through the state from n. to s. for more than 50 miles. About one-third of the state lies westward of this river. The Housatonic, still further w., rises in the Green mountains on the n. border, and flows s. through Connecticut to Long Island sound. The Hoosic, one of the tributaries of the Hudson, rises in the n.w. corner of the state, but soon passes beyond its limits. The principal western tributaries of the Connecticut are the Westfield and Deerfield rivers, which are of considerable size; while the tributaries of the same streams from the e. are Miller's and Chicopee rivers. The

Merrimac, which rises in New Hampshire, flows 35 m. to its mouth through the n.e. corner of the state, receiving on the way the Nashua and Concord rivers, and furnishing immense water-power for the great manufacturing towns, Lowell, Lawrence, Haverhill, etc. The rivers at the e. portion of the state are the Charles, on whose banks are Newton, Cambridge, and other large towns, and at whose mouth lies the city of Boston; the Blackstone, with almost unlimited water-power, and whose charming valley is lined with a cordon of manufacturing villages; and the Taunton, with its numerous branches. There are in the state many lakes and ponds, some of which are of unrivaled beauty, but none of them large enough to be useful for navigation. The coast is indented with numerous bays, large and small, and dotted with islands, some of which are of considerable size. The principal bays or sounds are Buzzard's, with many inlets and harbors, Vineyard, Edgartown, Nantucket, Cape Cod, Wellfleet, Duxbury, Massachusetts, Lynn, Nahant, Marblehead, Salem, Beverly, Gloucester, and Annisquam. The harbor of New Bedford, on Buzzard's bay, is, next to that of Boston, the best in the state. The principal islands are Nantucket, Martha's Vineyard, and the Elizabeth group of 16 off cape Cod.

The minerals of the state have not thus far been a source of much profit. In Bristol and Plymouth counties are deposits of anthracite, but of a very poor quality. In some places in the Connecticut valley are veins of lead, copper, and zinc, but not in quantities to justify working. Beds of iron ore in the Housatonic valley have been worked for many years, and the disintegrated quartz beds yield glass-sand of the finest quality. In 1874 deposits of silver, lead, and gold were discovered in Essex county, near Newburyport, the working of which has not thus far proved profitable. In some portions of the Connecticut valley are found extensive fossil footprints of birds and other animals, some of which must have been of gigantic size. The valleys of the principal streams are productive, but the other portions of the state can be made so only by enrichment.

Wild animals have been nearly exterminated. Bears, wolves, panthers, wildcats, and deer, formerly plentiful, are now almost never seen. Squirrels, rabbits, and game-birds are numerous. Owls, hawks, gulls, wild-ducks, and a great variety of song-birds are common. Reptiles exist in considerable variety, but few of them are venomous. The edible fish on the coast are abundant, embracing cod, halibut, mackerel, haddock, bass, and many other species.

The climate on the coast is variable, with prevailing e. winds, especially in the spring and early summer. In the interior it is more equable, and in the mountainous regions the winters are very cold. The mean annual temperature is about 48°.

Of the whole area of the state less than one-half is improved. In 1870 the number of farms was 26,500, embracing 1,736,221 acres of improved land, 706,714 acres of woodland, and 287,348 acres of other land unimproved. The cash value of farms was \$116,432,784; of farming implements and machinery, \$5,000,879; wages paid during the year, \$5,821,032; total estimated value of all farm products, \$32,192,378; of orchard products, \$939,854; of produce of market-gardens, \$1,980,321; of forest products, \$1,616,818; of home-manufactures, \$79,378; of animals slaughtered or sold for slaughter, \$4,324,658; of all live stock on farms, \$17,049,228. The chief productions were: Wheat, 34,648 bush., about one-half of which was spring and the other half winter; rye, 239,227 bush.; corn, 1,397,807 bush.; oats, 797,664 bush.; barley, 133,071 bush.; buckwheat, 58,049 bush.; peas and beans, 24,690 bush.; potatoes, 3,026,363 bush.; hay, 597,455 tons; tobacco, 7,312,885 lbs.; wool, 396,659 lbs.; butter, 6,559,161 lbs.; cheese, 2,245,873 lbs.; hops, 69,910 lbs.; maple sugar, 399,800 lbs.; honey, 25,299 lbs.; milk sold, 15,284,057 gallons. Horses on farms, 41,039; horses not on farms, 45,227; milch cows, 114,771; working oxen, 24,430; other cattle on farms, 78,851; neat cattle not on farms, 52,263; sheep, 78,560; swine, 49,178.

In proportion to the population the mechanical industries of Massachusetts exceed those of any other state. The latest statistics now accessible (Jan., 1881) are those of the state census of 1875. Whole number of manufacturing establishments, 10,915; total value of buildings, \$80,997,503; value of average stock on hand, \$89,061,506; value of machinery, \$73,434,914; total capital invested, \$267,074,802; number of persons occupied in manufacturing and mechanical employments, 316,459, of whom 233,252, were males and 83,207 were females. Of the males, 228,469, and of the females, 77,238, were above 15 years of age. The average yearly wages of both sexes and all ages was \$475.76. Total amount of wages for the year, \$126,711,583. The leading industries of the state, aside from agriculture and commerce, with the amount of their products respectively, as reported by the census of 1870, were as follows: Agricultural implements, \$1,033,590; bleaching and dyeing, \$22,250,429; boots and shoes, \$88,399,583; carpentering and building, \$12,429,739; clothing, \$21,724,020; cotton goods, \$56,257,580; cotton thread, twine, and yarn, \$3,009,543; cutlery, \$6,215,325; drugs and chemicals, \$1,617,904; fisheries (exclusive of whale), \$1,800,399; flouring and grist-mill products, \$9,720,374; furniture, \$11,369,148; glass, including cut and window, \$2,552,000; hardware, \$2,515,429; hats and caps, \$3,416,191; hosiery, \$3,213,481; india rubber and elastic goods, \$3,183,218; iron, forged and rolled, \$6,699,907; iron nails and spikes, \$5,986,144; wrought iron pipe, \$1,407,000; iron castings, including stoves and hollow ware, \$7,046,702; tanned leather, \$9,984,497; leather curried, \$19,211,330; morocco, tanned and curried, \$3,158,020; lumber, planed and sawed, \$6,651,670; machinery of all kinds,

\$16,426,742; marble and stone work, \$2,178,450; molasses and sugar refined, \$7,665,485; musical instruments, \$3,906,179; oil (fish and linseed), \$3,581,786; paper of all kinds, \$12,687,481; printing cotton and woolen goods, \$17,325,150; printing and publishing of all kinds, \$8,390,976; ship-building and repairing, \$2,070,201; shovels and spades, \$1,820,526; stone, \$1,294,148; straw goods, \$4,869,514; tin, copper, and iron ware, \$2,785,674; upholstery, \$2,424,457; watches, \$1,281,160; wire, \$2,854,672; woolen goods, \$39,489,242; worsted goods, \$8,280,541; mining and quarrying, \$1,493,522; fisheries, \$6,215,325.

The foreign and domestic commerce of Massachusetts is varied and extensive. The imports in 1874 amounted to \$52,737,280; foreign exports, \$2,280,772; domestic exports, \$28,455,515. Vessels entered during the year at the several ports, 3,066, aggregating 783,541 tons; cleared, 2,982, aggregating 708,048 tons; registered, 2,563, aggregating 458,373 tons. The number of vessels entered in the coastwise trade was 2,655, of 2,167,386 tons; cleared, 2,700, of 2,191,829 tons. Vessels engaged in the general fisheries, entered at Newburyport, 105, of 3,677 tons; cleared, 116, of 3,922 tons. The most important centers of the fishing trade are Gloucester and New Bedford, the former unsurpassed for the magnitude of its cod and mackerel fisheries, the latter the leading market for the products of the whale. The product of the American whale fisheries for the year ending June 30, 1874 (nearly all from Massachusetts), amounted to \$2,291,896, including sperm oil valued at \$1,250,987; other whale oil, \$775,919; and whalebone, \$264,990. The number of vessels in the state engaged in the whale fisheries was 170; in the cod and mackerel fisheries, 1026, of 49,578 tons. According to the census of 1870, more than half the products of the fisheries of the United States (exclusive of the whale fisheries) were the fruits of Massachusetts enterprise and industry. The capital invested in the business was \$4,287,871; number of persons employed, 8,993; value of products, \$6,215,325. The number of vessels built in the state in 1874 was 77, of 31,499 tons, including 5 steamers of 689 tons.

The rivers of Massachusetts are not navigable to any considerable extent, but a network of railways, extending to almost every part of the state, offers unbounded facilities for trade and travel. Trunk lines lead from Boston in every direction, and branches extend to or near a vast number of the smaller towns, so that by far the greatest number of inhabitants outside of that city may, if they wish, leave their homes in the morning, go there and transact business, and return the same evening. The oldest of the roads (that between Boston and Lowell, 25 m.) was opened for use in 1835. In 1874 the number of miles of railway in operation in the state was 1782. More than one-fourth of the main lines are laid with steel rails. There are over 60 corporations, but, owing to the combinations between different lines, 31 boards of direction control all the roads. The average cost of these roads per mile was nearly \$57,000; the cost of equipment about \$7,700 per mile. One of the lines, extending through the state in a n.w. direction from Boston, passes through Hoosac mountain by means of a tunnel $4\frac{1}{2}$ m. in length, costing over \$14,000,000, for which the state lent its credit. The aggregate capital stock of the 63 companies in 1876 was \$118,170,201; amount of their indebtedness, \$52,914,825; gross income, \$30,008,513; net income, \$9,344,088. All the roads are under the supervision of a board of railroad commissioners appointed by the state, and wielding large powers. The board settles disputed questions between the different roads and between the roads and the public; it is compelled to hear and investigate all complaints against the roads, and find out and recommend a remedy, and its supervisory powers extend to the care of accounts, the examination of tracks, bridges, etc., and the investigation of accidents. In 10 years the cost of this supervision was one-twentieth part of one per cent of the gross receipts of the roads.

The number of national banks in the state in 1874 was 220, with a capital of \$93,039,350; circulation outstanding, \$59,051,019. In 1876 there were 176 savings-banks, with deposits amounting to \$244,596,614; number of depositors, over 700,000. There were also 4 loan and trust companies, with \$1,700,000 of capital, and \$6,924,270 of deposits. The number of fire and marine insurance companies was 124, with \$52,197,870 of capital, and net assets aggregating \$6,924,270. The number of life insurance companies in 1874 was 6, 4 of them mutual. The assets of the 6 companies amounted to \$25,218,611, their total liabilities to \$22,291,740, their total income to \$6,749,854; amount insured by existing policies, \$132,951,879, of which \$630,000 was reinsured.

The population of Massachusetts 1790 was 378,787; 1810, 472,040; 1830, 610,408; 1850, 994,514; 1860, 1,231,066; 1870, 1,457,351, of whom 703,779 were males, 753,572 females, and 13,947 colored; while 579,844 were engaged in agriculture, 131,291 in professional and personal services, 83,078 in trade and transportation, and 292,665 in manufacturing and mechanical employments. Pop. '80, 1,783,012.

Massachusetts has always taken high rank in educational affairs. The school statistics of 1876-77 are: Number of public schools, 5,556; number of children between 5 and 15, 296,375; number in the schools, 307,832; number of male teachers, 1176; of female teachers, 7,544; teachers who have attended normal schools, 1898; average term of the schools, 8 months and 15 days; average monthly wages of male teachers, \$82.22; of female teachers, \$34.20; amount raised by taxation for the support of schools, \$4,331,675; income of funds appropriated at the option of the towns for the same object, \$59,229; amount of local school funds, \$1,898,891; income of local school funds, \$119,-

968; income of state school fund, \$76,320; amount expended in building and repairing school-houses, 956,483; number of high-schools, 216; number of incorporated academies, 44; average number of academy scholars, 3,939; number of private schools and academies, 385; evening schools, 92; total annual cost of public education, \$5,582,519. There are 5 normal schools, one each at Framingham, Westfield, Bridgewater, Salem, and Worcester, and a normal art school in Boston. Total annual appropriation of the state for normal instruction, \$76,000. The state school fund amounts to \$2,067,581; the Todd normal school fund to \$12,100; the agricultural college fund to \$360,067. The institutions for collegiate and scientific instruction are numerous and of a high order of excellence. The oldest of these is Harvard college at Cambridge, founded in the infancy of the colony in 1636. The others, in the order of their organization, are: Williams college (Congregational), Williamstown; Amherst college (Congregational), Amherst; college of the Holy Cross (Roman Catholic), Worcester; Tufts college (Universalist), Medford; Boston college; Boston university (Methodist Episcopal); Mount Holyoke seminary for girls (Congregational), South Hadley; Sophia Smith college for women, Northampton; Wellesley college for women, Needham. The theological institutions are: Andover theological seminary, Andover, Congregational; Newton theological institution, Newton, Baptist; Harvard divinity school, Unitarian; New Church theological school, Waltham; Boston university school of theology, unsectarian (under Methodist auspices); Episcopal theological school, Cambridge; Tufts college divinity school, Universalist. There are 2 law schools, that of Harvard college and that of the Boston university. The schools of medicine are 6 in number, viz.: Boston university school, Harvard medical school, New England female medical college, Boston dental college, Harvard dental school, Massachusetts college of pharmacy. The schools of science are 4 in number, viz.: Massachusetts agricultural college at Amherst, Massachusetts institute of technology in Boston, Lawrence scientific school at Cambridge, Worcester county free institute of industrial science. The number of professors and instructors in all these institutions in 1874 was 421, of students, 3,331; value of grounds and buildings, \$4,062,760; amount of endowments, \$8,314,173; income from productive funds, \$469,675; aggregate number of volumes in libraries, 337,132.

The institutions for special classes are as follows: Clark institution for deaf mutes, Northampton; Boston school for deaf mutes; Perkins institution and Massachusetts asylum for the blind, Boston; Massachusetts school for idiotic and feeble-minded youth, Boston; institution for education of feeble-minded youth, Barre; Hillside school, Fayetteville. The state provides for the deaf and dumb also at the American asylum for the deaf and dumb, Hartford, Conn. The reformatory, industrial and truant schools are as follows: State reform school, Westboro; state industrial school, Lancaster; Massachusetts infant asylum, Brookline; state primary school, Monson; Boston house of reformation; Lowell house of reformation; Plummer farm school, Salem; industrial school, Lawrence; truant school, Cambridge; truant school, Worcester; temporary asylum for discharged female prisoners, Dedham. There are institutions for the insane at Worcester (2), Taunton, Northampton, Somerville, South Boston, Ipswich, and Danvers, and almshouses at Tewksbury and Bridgewater. There are three state-prisons, one at Charlestown, one at Concord, and one for women (under the care of women) at Sherborn; also one state workhouse, and 15 houses of correction. The whole number of commitments to all the prisons (including county jails) in 1874 was 20,752, of whom 16,656 were males, and 4,096 females.

According to the census of 1870 the number of libraries in the state, of all classes, was 3,169, of which 1,544 were public. The public libraries contained 2,010,609, and the private 1,007,204 volumes. There is reason to believe that these figures, too small at the time, might safely be doubled in amount now.

In 1875 the number of newspapers and periodicals in the state was 341, including 26 dailies, 222 weeklies, and 58 monthlies, with an aggregate circulation of 141,774,382 copies annually. According to the census of 1870 there were in the state 1848 religious congregations, 1,64 church edifices, and \$24,488,285 of church property. The principal denominations, in order of members, are as follows:—Congregational, Methodist, Baptist, Roman Catholic, Unitarian, Episcopal, Universalist, Christian, Friend, Spiritualist, Freewill Baptist, Swedenborgian, Presbyterian. The number of church-members was 5,020.

The state debt, Jan. 1, 1879, was \$33,020,464; debts of cities and towns in 1878, \$68,864,685. The cash value of real estate in 1874 was \$1,289,308,763; of personal property, \$542,292,402; total taxes, state, county, city, town, and highway, \$28,700,605; number of dwellings in the state, 249,738.

The constitution is in substance that of 1780, with amendments adopted at different periods since. The governor, with the other principal executive officers, is elected annually by the people, and has a salary of \$5,000. A council composed of 8 members elected annually by districts, gives him advice upon matters of official duty. The legislative power is vested in a general court, composed of a senate of 40 members and a house of representatives of 240 members, elected respectively by senatorial and representative districts. The councilors are paid \$5 for each day's attendance, and \$2 for every 10 miles' travel. Senators and representatives are paid at the same rate, and \$1 for every 5 miles' travel from their homes. The election occurs annually, on the Tuesday follow-

ing the first Monday in November, and the general court or legislature meets on the first Wednesday in January. The supreme judicial court consists of a chief-justice (salary, \$5,500), and five associate justices (salary, \$5,000 each). The superior court consists of a chief-justice (salary, \$4,500), and nine associate justices (salary, \$4,000 each). The judges of both these courts are appointed by the governor, with the advice and consent of the council, and hold office during good behavior. Slavery in Massachusetts was judiciously abolished at an early day, by the operation of a clause in the bill of rights of 1780.

In 1786 occurred the revolt known as "Shays's rebellion," in the western part of the state. It was occasioned by the poverty of the people after the revolutionary war, which made them impatient under taxation, and was soon suppressed, though not without some loss of life.

A survey has been made for a ship canal across Cape Cod, and the work of making it has already been commenced. When completed it will greatly shorten the distance by sea between Boston and New York, and enable masters of vessels to avoid some of the worst perils of the voyage as at present conducted.

The electoral votes of Massachusetts for president and vice-president of the United States have been cast as follows:—1789, 10 for Washington and Adams; 1792, 16 for Washington and Adams; 1796, 16 for John Adams for president, and 13 for Pinckney; 2 for S. Johnston, and 1 for Oliver Ellsworth for vice-president; 1800, 16 for Adams and Pinckney; 1804, 19 for Jefferson and George Clinton; 1808, 19 for C. C. Pinckney and Rufus King; 1812, 22 for George Clinton for President, and 20 for Jared Ingersoll and 2 for Elbridge Gerry for vice-president; 1816, 22 for Rufus King and John E. Howard; 1820, 15 for Monroe for president, and 8 for R. Stockton and 7 for D. D. Tompkins for vice-president; 1824, 15 for Adams and Calhoun; 1828, 15 for Adams and Rush; 1832, 14 for Clay and Sargeant; 1836, 14 for Webster and Francis Granger; 1840, 14 for Harrison and Tyler; 1844, 12 for Clay and Frelinghuysen; 1848, 12 for Taylor and Fillmore; 1852, 13 for Scott and Graham; 1856, 13 for Fremont and Dayton; 1860, 13 for Lincoln and Hamlin; 1864, 12 for Lincoln and Johnson; 1868, 12 for Grant and Colfax; 1872, 13 for Grant and Wilson; 1876, 13 for Hayes and Wheeler; 1880, 13 for Garfield and Arthur.

MASSACHUSETTS AGRICULTURAL COLLEGE, at Amherst, Mass., was opened for students in 1867. Its endowment was derived from the public lands appropriated for the purpose by act of congress in 1862, and the faith of the state is pledged for its maintenance and support. The endowment is estimated at \$360,000, and the annual income is \$16,000. The college possesses a farm of 400 acres, on which the various buildings, embracing extensive dormitories, laboratory, chapel, professors' houses, museum, conservatories, etc., are centrally located. The real estate is valued at \$200,000, and the personal property of the farm at \$6,000. The laboratory is extensive and fully equipped, and the natural history collection is very fine. The library contains 2,500 volumes. Number of professors in 1880, 6; of students, 100; of alumni, 160. It is specifically an agricultural college, and not connected with any other institution. Its course of study extends over a period of four years, and the graduates receive the degree of B.S. It has special courses to accommodate those who desire to pursue scientific studies related to agriculture, but are unable to spare time from the farm to take a full course. The number of such, to whom certificates have been given on leaving, is 500. Every student is required to practice military tactics and drill three hours per week, and is taught the science and art of war by a government officer, who is a graduate of West Point. All students are required to labor six hours weekly on the farm, at the barn, in the orchards, vineyards, nurseries, or conservatories, for instruction in those departments, and wages are paid to those who desire to labor in order to earn the means for procuring an education. There is a post-graduate course for students who desire to become candidates for the degree of PH.D.

MASSACHUSETTS INDIANS. The Plymouth colonists, on their settlement in Massachusetts bay, found that part of the country populated by tribes of the Algonquin family, one of the three great aboriginal races of red-men that inhabited the basin of the St. Lawrence, and a tract of country as far south as that portion settled by the Pilgrims. These tribes were five in number, the Massachusetts and Nausets, on Massachusetts bay and cape Cod; the Nipmucks, or Nipnets, who dwelt in the central part of the colony which is now the state of Massachusetts; the Pennacooks, who extended north into New Hampshire, and the Pokanokets, or Wampanoags, who occupied the south-eastern part, and whose chief was the celebrated Massasoit. The new settlers speedily entered into friendly relations with these tribes, and as early as 1614 the Mayhews of Martha's Vineyard (q.v.), and in 1646 John Eliot had undertaken missionary labors among them. See ELIOT, JOHN. These efforts bore fruit, and in 1674 there were 600 converted Indians in Plymouth colony, 1500 in Martha's Vineyard, and 1100 in the Massachusetts bay colony. But though thus successful in conversion, the settlers had not been equally so in their general relations with the Indians, and in 1675 an irritated condition which had been gradually growing among the latter, culminated in the outbreak which has become known as king Philip's war. This trouble originated with Philip Metacomet, son and successor of Massasoit, under whom the Pokanokets or Wampanoags rose, and were joined by the

Nipmucks, Narragansetts, and Pennacooks, until a general Indian war had ravaged all the settlements. In this situation not even the new religious faith which had been instilled into the natives acted as a preventive, and the converted Indians joined with the rest in a general onslaught upon the whites. The struggle lasted a year, and only ended with the death of Philip, Aug. 12, 1676. The Pennacooks retired northward, and the other tribes submitted; but it is on record that numbers of those who were captured were exported to the West Indies as slaves. From this time the Massachusetts Indians followed the general course of their race, dying out, or retiring before the white man, or assimilating with the latter or with the negroes. In 1861 a census showed the Indian and half-breed population of the state to be 1610, of whom 306 were on Martha's Vineyard, at Christiantown and Gayhead; 438 at Mashpee and elsewhere on Cape Cod; and the remainder scattered. The United States census of 1870 made return of only 150 Indians in the state of Massachusetts, so had the process of reduction, or of assimilation, progressed in nine years.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, in Boston, was founded in 1861 and went into operation in 1864. Its endowment consists of one-third part of the income derived by the state from lands appropriated for such purposes by congress in the act of 1862. It provides a series of scientific and literary studies, so arranged as to offer a liberal and practical education in preparation for active pursuits, as well as a thorough training for most of the scientific professions. The courses of a distinctively professional character are: 1. Civil and topographical engineering; 2. Mechanical engineering; 3. Mining engineering, or geology and mining; 4. Building and architecture; 5. Chemistry. Five other courses have been established, as follows: 6. Metallurgy; 7. Natural history; 8. Physics; 9. Science and literature; 10. An elective course. Each of these courses extends through four years, and for proficiency in any one of them the degree of bachelor of science is conferred. Special laboratories are provided for the instruction of women, the design being to afford them facilities for the study of chemical analysis, industrial chemistry, mineralogy, and biology. Instruction will be given to women on other subjects, also so far as suitable arrangements can be made for them. The particular course of study, which a candidate for the degree of doctor of science wishes to pursue, must be submitted to the faculty in writing, and must meet their approval. A knowledge of the Latin language is not required for admission, but strongly recommended for the better understanding of the terminology of the sciences. The school of mechanic arts affords instruction in carpentry and joinery, wood-turning, pattern-making, foundry work, iron-forging, vise-work, and machine tool work. Candidates for a degree in physics take practical courses in microscopy, photography, lantern projections, and meteorology. The institute has 16 professors, 8 instructors, 8 assistants, and 243 graduates. President, Wm. B. Rogers, LL.D.

MASSA MARITTIMA, a t. in Italy, on the n.w. coast in the province of Grosseto, near the barren and unhealthy district of the Maremma; pop. 13,052. It has been a subject of dispute between the cities of Siena and Pisa, each having claims on the town, which is the seat of a bishopric formerly having its seat at Populonia, and is composed of several contiguous villages. The coast in its vicinity is traversed by a railroad.

MASSARUNI, or MAZARUNI, RIVER, in British Guiana, takes its rise in the mountains of Venezuela, lat. 4° 30' n., long. 60° w., and flows in an extremely irregular course in a general n.e. direction until it joins the Guyuni (or Cuyuni), through which it empties into the estuary of the Essequibo river. The river has been explored for several hundred m. and is marked by a number of small islands at its mouth, and by wild scenery and bold granite cliffs in its upper course.

MASSASOIT, sachem of the Wampanoag or Pokanoket Indians. His territory at one time extended over nearly all the southern part of Massachusetts from Cape Cod to Narragansett bay, and his tribe numbered 30,000, but at the time of the landing of the Pilgrims they had been reduced by disease to about 300. In 1621, Mar. 22, he visited Plymouth three months after it was founded, with 60 armed and painted warriors, for the purpose of making a friendly league with the white men. Governor Carver was so much pleased with the frank and friendly bearing of Massasoit, that on behalf of the colony he concluded a treaty of peace and mutual protection with the Wampanoags. This was sacredly kept for 50 years. Massasoit always remained friendly to the colonists. He resided in Pokanoket, or what is now the town of Bristol, R. I., where commissioners from the adjacent settlements often visited him. When Roger Williams was banished from Massachusetts, he was entertained on his way to Providence by Massasoit for several weeks. Although the English committed repeated usurpations upon his lands and liberties, he was their friend as long as he lived, imbued his people with the love of peace, and gave notice to the Pilgrims when they were in danger from other tribes. He had several sons, grandsons, and brothers. Before his death, which is supposed to have been in 1662, he had been induced to cede away at different times, nearly all his lands to the English. His two eldest sons, Wamsutta and Pometicom, or Metacomet, had English names, of which the following account is given: "After Massasoit was dead his two sons, called Wamsutta and Metacomet came to the court at Plymouth, pretending high respect for the English, and therefore desired that English names might be given them; whereupon the court there named Wamsutta, the elder brother, *Alexander*,

and Metacomet, the younger brother, *Philip*." Massasoit was succeeded by his eldest son Alexander, who dying a few months after, Philip became by the order of succession head chief of the Wampanoags. These two sons, after their father's death, were regarded with much jealousy by the English, and were suspected of plotting against them; and Philip afterwards was distinguished by his wars with the English.

MASSÉ, GABRIEL, b. France, 1807; studied law and was called to the bar of Paris in 1833. He met with great success in his practice, but is best known as the author of a number of legal treatises and as editor of the *Recueil des Arrêts*. His best work, *Le Droit Commercial dans ses Rapports avec le Droit des Gens et le Droit Civil* was printed from 1844 to 1848 and republished in 1863. In 1874 he became a member of the academy of moral and political sciences.

MASSÉNA, a t. of St. Lawrence co., N. Y., pop. '70, 2,709; situated on the Grass and Racket rivers, and bounded on the n.w. by the St. Lawrence. The township comprises Massena Center, Massena Springs and the village of Massena. The three streams furnish abundant water power, and the chief industry is the milling of flour. The portion called Massena Springs is quite popular as a watering place and has four or five hotels.

MASSEY, GERALD, b. in Herefordshire, 1828, of poor and illiterate parents who could give him no education. He was set to labor in a silk-mill when 8 years old, and afterwards at straw plaiting. At 15 he found employment in London as errand boy, and got hold of a few books, among them *Pilgrim's Progress*, and *Robinson Crusoe*. At 17 he was in love, and began to write verses. But his themes embraced also the sufferings of the poor, and showed deep thoughtfulness and feeling concerning the inequalities of human condition. The French revolution of 1848 awakened in his mind the desire to contribute something to the amelioration of his own class through political efforts, and in company with fellow-workmen he started a weekly reform paper under the title of the *Spirit of Freedom*. The rev. Charles Kingsley and other prominent philanthropic political agitators of that time gave their council and aid, and called public attention to the poetic faculties of Massey. He afterwards became a lecturer on Spiritualism in England, and in 1873 in the United States. The English government granted him a pension, and lord Brownlow presented him with a cottage in his native county, where he resides. His published works embrace *The Ballad of Babe Christabel and other Poems*, 1853; *Craigcrook Castle*, 1856; *Robert Burns and other Lyrics*, 1859; *Voices of Freedom and Lyrics of Love*, 1859; *Havelock's March, and other Poems*, 1861; *Shakespeare's Sonnets, never before Interpreted*, 1866; and *A Tale of Eternity, and other Poems*, 1870.

MAS'SICO, a mountain in the province of Terra di Lavarò, Naples, Italy, famous in ancient and modern times for the wines produced from its vineyards. On its southern slope is a town of the same name. It was here that Appius Claudius gained his victory over the Samnites.

MASSIE, NATHANIEL, 1763-1813; b. in Goochland co., Va.; at 17 years of age entered the revolutionary army; became a surveyor, and settled in Kentucky in 1783; removed to Manchester, Ohio, in 1790, and laid out the town of Chillicothe upon lands owned by himself; took part in the Indian wars of the northwest, gaining the rank of general of Ohio militia; was a member of the convention which framed the first constitution of Ohio in 1802; was often a member of the legislature, and served one term as speaker of the senate; was declared to have been elected governor in 1807, but resigned before entering upon office.

MASSILIA. See MARSEILLES, *ante*.

MASSILLON, a city in n.e. Ohio, on the e. bank of the Tuscarawas river, and on the Ohio canal, connecting it with lake Erie; pop. '74, 7,000. It is a junction of the Pittsburg, Fort Wayne and Chicago; the Cleveland, Tuscarawas Valley and Wheeling; and the Massillon and Cleveland division of the Cleveland, Mount Vernon and Delaware railroads. It is the center of the famous coal fields of Tuscarawas valley, and has a prosperous community, engaged in farming and important industries and mining. In the vicinity are 3 quarries of white sandstone, which is largely exported. It is a shipping point for large quantities of grain, wool, butter, and beef. Its industries are represented by blast furnaces for pig-iron, rolling-mills, flour-mills, sash factories, machine shops, iron-bridge factories, paper-mills, the Russell mills for the manufacture of agricultural implements, the Massillon excelsior works, and the Massillon harvester works for the manufacture of machinery, sold extensively at the west. It has 3 newspapers, and a library for the use of members of the young men's Christian association. The first surveys for the township were made in 1826. It presents a fine appearance, being regularly built, and containing many fine residences and substantial public edifices, and is lighted by gas. It has excellent educational advantages, including a school supported by charitable people; 11 churches, 3 banks, 2 of which are national, and an opera house erected at a cost of \$100,000.

MASSINGBERD, FRANCIS CHARLES, 1800-72, b. in Lincolnshire, England, and educated at Magdalen college, Oxford. After graduating with high honors he entered the church and became rector of South Ormsby in his native county (1825). In the Lincoln cathedral he was made a prebendary in 1847, and in 1862 chancellor. In addition to

many papers and discussions on ecclesiastical subjects he was the author of *Church Reform* (1837), *History of the English Reformation*, *Law of Church and State*, and *Lectures on the Prayer Book* (1864).

MASSINISSA. See MASINISSA.

MASSON, DAVID, b. Aberdeen, Scotland, 1822: educated at Marischal college, Aberdeen, and the university of Edinburgh, became editor of a Scottish provincial paper at the age of nineteen; went to London in 1844, remained a year, contributing to *Fraser's Magazine* and other periodicals. For two or three years he was in Edinburgh, writing for periodicals. In 1847 he returned to London where he remained 18 years, and while there was chosen professor of the English language and literature at the University college, London. He retired from this post in Oct., 1865, having been appointed professor of rhetoric and English literature in the university of Edinburgh. He contributed numerous articles to the *Quarterly*, *British Quarterly*, and the *North British Review*, to the *Encyclopædia Britannica*, and the *English Cyclopædia*, and in 1859-63, was the editor of *Macmillan's Magazine*. To this he contributed numerous articles. His best-known papers are on *Carlyle's Latter-Day Pamphlets*; *Dickens and Thackeray*; *Rabelais*; *Literature and the Labor Question*; *Pre-Raphaelism in Art and Literature*; *Theories of Poetry*; *Shakespeare and Goethe*; *Hugh Miller*; *De Quincey and Prose-writing*. He has published *Essays, Biographical and Critical, chiefly on English Poets*; *Life of John Milton*; *British Novelists and their Styles*; *Recent British Philosophy, a Review with Criticism, including some Remarks on Mr. Mill's Answer to Sir W. Hamilton*; *Chatterton: a Story of the year 1770*; *Essays on Wordsworth, Shelley, Keats*. In 1873 he published a biography of the poet Drummond, entitled, *Drummond of Hawthornden: the Story of his Life and Writings*; *The Three Devils—Luther's, Milton's, and Goethe's*. His life of Milton is of high authority.

MASTER IN CHANCERY, an officer of a chancery court, appointed to assist the chancellor. His duties, in general, are prescribed by statute. It is a common practice to refer causes to a master for hearing, particularly causes involving intricate accounts, and requiring computations. A master is often appointed to examine witnesses, to take depositions, to inquire into and report the facts of a case, to make settlements under deeds, to discharge special acts under the direction and in behalf of the court, etc. Masters in chancery were formerly clerks in chancery, 12 in number, with the master of the rolls at their head. They were at first called *preceptores*, and were not called masters, till the time of Edward III. The office has been abolished in England, where the duties formerly belonging to masters are discharged by judges or registrars. In most of the United States the office still exists, with the duties already described annexed to it, subject to statutory modification in the various states. In some states, officers with the same functions as masters in chancery, are called commissioners.

MASTER AND SERVANT (*ante*). In the United States the common-law rules governing this relation have been modified by statutory enactment in a very slight degree only. The law of contracts almost always governs without being restrained by legislation arising from class distinctions or rank. The principles of common law apply in this country more completely than in England, where there are many special statutes on the subject. The terms master and servant are used in more than one sense, and may indicate a relation of service in fact, or such a relation existing only by construction of the law. As applied to domestic service and apprenticeship there is little of importance to be said. The latter relation is now not very common in this country, and the legal principles applicable have long since been well settled. When the words are used in a broader sense the relation indicated is often very like that of principal and agent, and the general laws of agency apply. The law of this country recognizes no distinction between the hiring or liability of domestic or agricultural servants and others. In the contract there must be mutual engagements, but they need not necessarily be co-extensive. Thus the servant may agree to serve for a year without binding the hirer to retain him for the whole of that period. The contract of service comes under the statute of frauds, and should, therefore, be in writing if for more than one year. If the contract be "entire," that is, for the whole of a definite period, the servant cannot recover unless he serves for the whole time. The master may dismiss for refractory or immoral conduct, and can sue his servant for damages incurred by refusal to perform his duties. On the other hand, if after contract made the master refuse to furnish work, the servant may sue for the whole amount of his wages if he present himself at the proper time in readiness to perform. Thus an opera singer may sue a manager for full contract salary, though the singer may never have been allowed to sing a note. The liability of the master to his servants for damages incurred from one another while in his employment can be based only on neglect by him to furnish proper tools or the willful hiring of incompetent persons. But it has been held, in *Davis vs. Detroit R.R. Co.*, 20 Mich., 105, that though a servant was injured by the negligence of a very incompetent fellow-servant, yet he could not recover because, being aware of the incompetence, he voluntarily took the risk. See also 3 Cushing, 270, and 20 Barber (N. Y.), 449. But if the service is of its very nature dangerous, and the servant undertakes it knowingly, he can have no remedy for injuries. More important are the distinctions as regards the liability of the master to third persons for the acts of his servant. The principle which governs is based upon

the control or non-control of the latter by the former. The general rule is that the master is liable for all tortuous acts done by a servant when in his service and acting within the scope of his proper employment. A general contractor, however, is not under the control of his employer; and, therefore, the latter is not liable for his acts. But in the case of corporations and particularly in railroad cases the courts of the several states have, from motives of public policy, seen fit to consider the corporation as in fact itself present in the persons of its servants. Again, it was formerly held that a master could not be liable for the willfully wrongful act of his employee, when not acting under direct authority; but in 38 Miss., 242, a railroad was held responsible for the wilful and wanton act of an engineer; and the tendency of modern cases is strongly towards enlarging the limits of the doctrine of *respondet superior* as applied to great corporations which assume extraordinary powers and hold human life and immense property interests in their hands. But notice of want of authority in servants by the superior officers of a railroad will relieve them of liability for the acts of such servants. In 14 Howard, 468, it was held that it made no difference that an inferior disobeyed orders of a superior, provided that he was acting strictly within the scope of his own employment, and the company was held liable. The relations of employer and employed in the railway system have been productive of the most important discussions and decisions as regards the law of master and servant which have arisen in this country. See *Redfield on Railways*.

MASTER SINGERS. See MINNESINGERS, *ante*.

MASTODON (*ante*). The mastodons are distinguished from the elephants principally by their dentition. As in the elephants, the upper incisors grew from permanent pulps and constituted the tusks. In most cases, moreover, the mastodons have lower incisors, and these often formed short tusks, which, however, usually disappeared in the adult. But the more important distinction is found in the molar teeth, which are more numerous in the mastodon, and have nipple-shaped tubercles. These tubercles are in rows, the number of which varies in different species. For this reason Dr. Falconer divided the mastodons into two principal sections, *trilophodon* and *tetralophodon*. In *trilophodon* are *mastodon giganteus*, of the post-pliocene of North America; *M. tapiroides* and *M. angustidens* of the miocene, in which there are three rows of tubercles. In *tetralophodon* are *M. latidens* and *M. longirostris* of the miocene, and *M. arvernensis* of the pliocene, in which the molars have four rows of tubercles. In *M. sivalensis* from the upper miocene of India the molar teeth have five rows, and the last six rows of tubercles. For this Dr. Falconer proposed the name of *pentalophodon*. The distribution in time of the mastodon differs in the two hemispheres. In Asia and Europe the genus commenced in the miocene and became extinct in the pliocene. In America no fossils of them have been found previous to the pliocene, but they continued to the end of the post-pliocene period. The *mastodon giganteus* of North America ranged from Canada to Texas. The most complete skeleton perhaps which has been found was discovered in 1845 at Newburg, Orange co., N. Y., in a swamp usually covered with water, and described by Dr. J. C. Warren, of Boston, in which city the skeleton now stands. In this specimen the cranium is flatter than in the elephant, narrow between the temporal fossæ, the face becoming much wider below the nasal opening. The temporal fossæ are very large, indicating great power in the muscles of the jaws. The cervical vertebrae have short spinous processes, except the last, which is 6½ inches. The spinous process of the third dorsal vertebra is 23½ in. long, the others gradually becoming less, the last being 4 inches. The first lumbar vertebra measures, across the transverse processes, 17 in., the body measuring 5 inches. The sacrum consists of five bones and is 20 in. in length on the lower surface. The caudal bones probably numbered about 22, and were very strong at the commencement of the tail. There are 20 ribs, 13 true, and 7 false or floating. The first one is 28 in., and the ninth, the longest, 54½ in. long; the last is 21 inches. The shoulder-blade is more nearly equilateral than in the elephant, and the glenoid cavity, for the reception of the head of the humerus, is 11 by 5 inches. The humerus is 39 in. in length and the same in its largest circumference. The circumference of the elbow joint is 44 inches. The radius is 29 in. long and 6½ in. wide at the lower end; the ulna larger and 34 in. long. The fore foot is nearly 2 ft. broad. The thigh-bone, about the length of the humerus, is 17 in. in circumference at the middle and 30 in. at the lower end; the knee-pan is nearly globular; tibia 28 in. long, 30 in. in circumference at the upper end where it articulates with the thigh-bone, and 13½ in. at the middle. The skeleton is 11 ft. in height and 17 ft. long from end of face to commencement of tail which is 6 ft. 8 in. long. The circumference of the skeleton around the ribs is 16 ft. 5 in., and the tusks are 11 ft. long, 8 ft. 8 in. projecting beyond the sockets. About 30 species of mastodon are described by Dr. Warren in his work *The Mastodon Giganteus of North America*, 2d ed. 4to, Boston, 1855. A species similar to the *giganteus* existed during the same time in South America, also species belonging to the European type.

MASTODONSAURUS. See LABYRINTHODON, *ante*.

MASUDI, or AL MASUDI (ABUL HASAN ALI BEN HUSEIN BEN ALI), b. Baghdad, 9th c. descended from the great family of the Abdallah-ben-Masud, one of whose members had attended Mohammed, on his flight to Medina. Masudi early devoted himself to profound studies, to which he added by prolonged travels in Spain, Russia, and throughout the east. In the year 303, of the hegira, he was in China, where Arabic colonies

already existed: thence he passed through Arabia and Persia to the Caspian sea. Thirty years later, we find him in Syria, and the second edition of his *Golden Meadows*, his last work, was written in Egypt. He is supposed to have died at Cairo, in the 345th year of the hegira, A.D., 956. He was a most voluminous writer upon a great variety of subjects, and no Arabian author enjoys a higher reputation with his countrymen. He was a geographer, a philosopher, a student of religions, to whom Confucianism and Christianity were as familiar as Mohammedanism, and a historian acquainted with the ancient and modern history of the east and west. His *History of the Times*, a history of all nations, has never been printed. A manuscript of it in twenty quarto volumes is in the library of the mosque of St. Sophia. His *Book of the Middle*, devoted largely to geographical inquiry, is known in Europe, only by quotations from it in Arabic writers. As his other works were too voluminous to become popular, he compiled a series of extracts from the *History* and *Book of the Middle*, and published them, with some additions, under the title of *Meadows of Gold* and *Mines of Gems*. This work contains a general view of the political, religious, and social history of the most important Asiatic and European countries; and it includes a treatise on their geography. A partial translation of the *Meadows*, appeared at London, in 1841, from the pen of Dr. Aloysius Sprenger, and as *El Masudi's Historical Encyclopedia*; and there is a French translation called *Les Prairies d'Or*, by Derenburg. Among Masudi's often quoted works, but existing in manuscript only, are *The Book of Consolation*, which treats of the order of succession to the Khalifat; the treatise *On Sincerity*, which gives an account of the various Mohammedan sects, and a treatise on *The Principles of Religion*. Dr. John Nicholson published in 1840 *An Account of the Establishment of the Fatemite Dynasty in Africa*, from a manuscript ascribed to Masudi.

MAT—MATTING, a product of the manufacture of diverse materials, multiform in shape and varied in design, for purposes differing with the climate and habits of the people where they are made. Flags, rushes, straw, cocoa-nut, and other palm fiber, grass, rattan, the strands of rope, and the inner bark of trees are used. Some are of primitive pattern and rough workmanship, for the promotion of neatness in the home as a door-mat, to recline on for lack of a bed, for sails instead of canvas, and for doors and windows. In recent, more refined development of the art, such rude fabrics have served only for protection in moving household and other goods, or preserving trees and plants from the severity of the weather. The manual process of plaiting fibrous material into mats is understood to be the rudimentary intertexture which has resulted—after passing through many gradations growing out of the luxurious habits of the Turks and Persians, and the need of the Mussulman for a portable mat to kneel upon—in the formation of textile fabrics out of threads and yarn, the almost fabulous product of the looms of Persia and India. Rush mats were used in palaces during the reigns of queen Mary and queen Elizabeth, even after the importation of carpets from the east, and lord Bacon, in describing a reception at which he was present, refers to a chair with “a table and carpets before it,” meaning small carpets or rugs, which were then imported and considered very choice, straw and rushes being good enough for common wear. The first departure from this primitive manner of weaving was the insertion with the fingers of little tufts of woolen yarn between the threads of the warp. The same painfully slow process is employed at the present day in the manufacture of the famous Gobelin tapestries. In the South Sea islands the grass-mats made by the natives are noted for fine quality and brilliancy of coloring. In Japan a peculiar kind of rush is found, soft and elastic. In China floor-mats are made of a kind of grass cultivated in the south, and table-mats are made of rattans and rushes; the familiar Canton matting and Japanese mats being also made of rushes. In Spain and Portugal they are made from reeds and rushes, and in Russia the manufacture is a branch of common industry. It is used for packing all their exports, and is made of the bark of the lime or linden tree, sometimes called “bast,” which calls the whole people into the woods in the early summer to collect the bark, especially in the dominion of Viatka and adjoining districts. The bast trees of n. Europe (the linden or basswood of the United States), used also in the culture of bees, supply an inner bark, which, made into strands and woven and twisted into the required form, are called bast mats or Russia matting. The mats are usually from 1½ to 2 yards square, and are of great importance in the manufacture and exports of Russia, the exportation in one year amounting to 14,000,000 mats. In America bast from the linden is sold for tying plants in grafting. In Russia the bast is prepared by steeping the bark in water for a few days, taking it from young and tender trees. After the steeping process its layers readily come apart, and are used for different purposes according to their texture. In Spain and Portugal esparto grass, a species of rush found in the s. of Spain, is used principally for the manufacture of cordage, but is said to make beautiful mats. Sugar and grain imported from the Mauritius comes packed in mats made of leaves. India matting is woven from *papyrus corymbosus*, according to Simmonds, by others said to be *papyrus Pongorci*, a kind of sedge resembling grass, but with a solid stem.

MATAGORDA, a co. in s.e. Texas, having the gulf of Mexico for its s. and s.e. boundary, the Matagorda bay in the extreme s., and Live Oak bay in the s.e.; drained by the navigable Colorado river, flowing through it centrally and emptying into Matagorda bay; 1300 sq.m.; pop '80, 3,940—2,755 of American birth, 2,520 colored. It is bounded on

the e. and s.e. by San Bernard creek. Its surface is generally level, and has a good supply of timber, oak, and cedar; the pecan, hackberry, and other tropical trees grow on the river banks, the alluvial soil of which as well as the rich sandy soil of the level prairies, furnishes nutritious grass, and produces corn, tobacco, cotton, wool, sweet potatoes, butter, and sugar cane. Seat of justice, Matagorda.

MATAGORDA ISLAND, a long, sandy island in Calhoun co., Texas, separating Espiritu bay from the gulf of Mexico; lat. 28° 20' 49" n., long. 96° 23' 30" west. On its northern end, near Pass Cavallo, is an iron light-house with a flashing light.

MATAMOROS, MARIANO, 1770-1814; of Mexican birth; very little is known of his early life or education. He is first heard of as a priest at a small village called Janteloco, in the district of Cuernavaca, but in 1811, aroused by the constant atrocities and insults of the Spanish troops, he joined the army of insurgents under command of the patriot, Morelos. By him he was given the rank of col., and took a most important part in the battles of Cuantla (1812), Oaxaca, and most notably at the victory of San Augustin del Palmar (1813), which was due almost entirely to his military genius. Had his nominal superiors relied implicitly on Matamoros's judgment as a gen., the issue of the revolution might have been reversed; but rashly attempting the attack on Valladolid, the Mexican leader's forces were routed and "the right hand of Molero," as Matamoros was popularly named, captured and shot at the city of Valladolid, Feb. 13, 1814. His name has been bestowed on the large city of Matamoros, on the banks of Rio Grande, and upon many smaller towns and districts of the country. By the historians of the time he is regarded as, of all the revolutionary leaders of the period, the one best fitted, from a military point of view, to command success.

MATAPAN, CAPE. See CAPE MATAPAN, *ante*.

MATELICA, a t. in the province of Macerata, or, as it is sometimes called, *Macerata-e-Camerino*, one of the former papal states and a part of the district known as the Marches. It is a walled town of from 3,000 to 3,500 inhabitants, situated on the San Angelo river and not far from 25 m. s.w. of the town of Macerata. The place contains several convents and churches. The inhabitants are chiefly engaged in agriculture, the raising of fruit, and, to a small extent, in woolen manufactures.

MATERIAL CAUSE, in metaphysics, is the first in order of the four kinds of causes which Aristotle points out, and which later philosophers generally adopt. As thus defined it is the physical basis for the existence of a thing; or, in other words, the matter of which the thing is made. The material cause of a thing is, consequently, to some extent the thing itself; for example, it has been said that the material cause of a marble statue is marble, yet of any particular block of marble, parts must be cut away in order that the finished statue may appear.

MATERIALISM (*ante*). One difficulty in treating this subject is that of giving a definition of the term satisfactory to all parties. Webster defines a materialist as "one who denies the existence of spiritual substances, and maintains that the soul of man is the result of a particular organization of matter in the body." Knight's English cyclopædia defines materialism as "a name applied to any philosophical system which denies the existence of a spiritual or immaterial principle in man, called the mind or soul, distinct from matter; or in other words, denies the immateriality of the soul." The *Encyclopædia Britannica* says "materialism is the name given to that speculative theory which resolves all existence into a modification of matter." The latter definition is practically the most comprehensive and correct, although some materialists might with justice object to it without modification, for there are those who are practically materialists, if they do not call themselves such, who do not deny the existence of God, at the same time that they maintain that matter contains within itself—either endowed, or originally possessing—properties by which it is capable of transforming itself into the various forms of life, and moreover that this power is not essentially the active presence of Deity. The belief of the union or the unity of God and matter is pantheism (q.v.). It is common to denote the opposite doctrine to materialism by the term idealism; but this fails to make sufficient distinction, and is not as appropriate as the word spiritualism in its proper sense, as used to designate a belief in a spiritual being who created the universe and controls its phenomena by laws or by continuous force, and who has moreover endowed certain of the higher animals with certain degrees of intelligence, giving to man especially intellectual powers which are generally believed to result from the possession of an immaterial and immortal spirit separate from the divine, which, upon the dissolution of the body, is to continue its existence in another world, and, moreover, as those who accept divine revelation believe, is to be rewarded or punished. The terms materialism and materialist have often been misapplied, and it is sometimes difficult to form an opinion as to whether the views of some of the ancient, as well as modern philosophers are essentially materialistic or not. Democritus is usually classed as a materialist; but such a disposal of his philosophy cannot accord with a rational treatment of the subject of materialism as it meets us to-day, for one of his propositions is as follows: "The soul consists of fine, smooth, round atoms, like those of fire. These atoms are the most mobile, and by their motion, which permeates the whole body, the phenomena of life are produced. Democritus also believed that this matter was distributed through-

out the universe, producing the phenomena of heat, light and life. Epicurus, who may be considered in some respects as a follower or disciple of Democritus, taught that the soul was a fine substance, distributed through the whole mass of the body, and most resembles the air, with an infusion of warmth. This soul was not, however, immortal, but ceased to live on the dissolution of the body; but it was something superior to the matter of the body. This, therefore, was at least a modified form of materialism, and not that which invests the matter of the body itself with vital and intellectual power. It was not so spiritual a doctrine as that held by Socrates and Plato, the soul, according to them, being indestructible and devoid of all grossness. The author of the article "Materialism" in Knight's English cyclopædia says: "The systems to which the name materialism is applied may be roughly distributed under a threefold division. First, it is applied to a system (like that of Hartley) which admits the existence of a soul, but which, attempting to explain mental phenomena physically, or by movements arising out of the bodily organization, seems to imply materialism. Secondly, it is applied to the system of Hobbes and Priestly, and of the French school of writers of which De la Mettrie may be taken as a specimen, which distinctly deny the existence of a soul as a separate principle in man, but which do not deny either a God or a future state. In the systems of these writers is evolved the pure and proper idea of materialism divested of all unnecessary consequences. Thirdly and lastly, the name is applied to systems like that of the ancient Epicureans, which deny both a future state of rewards and punishments, and a divine creator, systems for which atheism would be the better name, inasmuch as materialism fails to denote their more important and distinctive ingredients." Upon further mention of Priestly this writer says: "He does not deny the immortality of man and a future state of rewards and punishments. On the contrary, he distinctly affirms these on the authority of Scripture. It is needless to add that Dr. Priestly does not deny the existence of a God." It is therefore perceived that there are various ideas as to what constitutes materialism.

It would be unprofitably occupying the space assigned to this article to undertake even to give a summary of the history and development of the various theories connected with the doctrine of materialism. Its history is found scattered through various writings, much of it embodied in the biographies of the various philosophers who have from time to time in all ages propounded theories; in philosophical histories of different epochs and nations; in philosophical and religious disquisitions and sermons; in various works on metaphysics and philosophy, and in systematic histories. No attempt will therefore be made even to assign many of those who have written upon the subject their just and proper position. It would be impossible to give a fair representation of their views in a few pages, when long dissertations have failed. As far, therefore, as regards the history of the subject the reader is referred to the various biographical notices of persons which may be found in this work, such as Democritus, Pythagoras, Socrates, Plato, Aristotle, Lucretius, Empedocles, Epicurus, Bacon, Locke, Hobbes, Berkeley, Gassendi, Descartes, Leibnitz, Kant, Spinoza, Hegel, Holbach, and Priestly, and to the accessible works of these philosophers, as well as to those of more modern authors, on both sides of the subject, metaphysicians and scientists, such as sir William Hamilton, Paley, Jonathan Edwards, Mark Hopkins, Charles Hodge, Edward Hitchcock, Maudsley, Herbert Spencer, Huxley, Tyndall, James D. Dana, John W. Draper, William B. Carpenter, Joseph Le Conte (*Religion and Science*), Bastian, Lionel Beale, Hermann Lotze, Heckel, Charles Darwin, and Du Bois Reymond, and to Lewes's *History of Philosophy*, and Lange's *History of Materialism*.

What are the evidences in favor of materialism, what are the evidences against it, and what is the nature of these evidences? On the one hand, physical examination fails to find, or at least to demonstrate, any physical power in the living organism which cannot be accounted for by correlation of physical forces, and it is contended that the performances of various functions follow each other consecutively, according to external circumstances. As far as the doctrine of evolution may be made use of to favor that of materialism, it is contended that geology and zoology furnish evidence of the gradual progression in development from lower to higher forms of life. There are connecting-links, it is asserted, which show that one form of animal organization has been transformed into another. In some of the lower crustaceans particularly, the transformations are held to be quite evident. In the cœlenterata (jelly fishes, etc.) various metamorphoses and alternations of generations occur (see GENERATIONS, ALTERNATION OF) which are held as evidence of the power of evolution possessed by protoplasmic matter. Geology is claimed to have given a verdict in favor of progressive development in the discovery of fossils of the horse family in tertiary formations from the eocene up to the quaternary period (see HORSE, FOSSIL). The experiments of several scientists with vegetable infusions for a long time seemed to show that animal organisms could be developed in dead organic matter containing no living germs, but recently it has been shown that when proper precautions are taken to exclude all atmospheric germs and also to destroy all living matter contained in the infusions, no development of life takes place. A recent writer remarks: "Numerous questions have arisen from time to time through the conflicts of materialism with opposing doctrines, and it will be found that these questions have been brought to definite issues, in our day, for final settlement." This is either hoping for too much or for a questionable result. It is more probable that human investigation will never bring

the question to a settlement, but that it will ever elude the grasp of the investigator, and it is probably a wise provision that it is so. It is a conflict out of which flows the most beneficial effects upon human character and understanding; for it is a law of nature that all our faculties, physical as well as mental, are strengthened and more perfectly developed in combating with opposing forces. No machine, intellectual or physical, can accomplish work without opposing force or *resistance*. Moreover, if we possessed complete evidence that we totally perished when our bodies underwent dissolution, or that our spirits were immortal, coupled with a foresight of our destiny, no beneficial result could follow, but we would, with the natures we now possess, perhaps be rendered miserable. One of the principal evidences which have been brought forward against the doctrine of materialism is the almost universal aspiration after a future life. Dr. John William Draper, in his *History of the Conflict between Religion and Science*, says: "Nature has thus implanted in the organization of every man means which impressively suggest to him the immortality of the soul and a future life." But this is a belief and will probably always continue a belief. Leibnitz attempted to prove the immortality of the soul by his doctrine of monads, but probably no writer has furnished more ideas to fortify the doctrines of materialism than he; the essence of his doctrine was indeed materialistic. The atom produces its own sensations from itself, and it develops itself in accordance with its own internal laws of life. Every monad is a world to itself, and no one is like another, but the ideas of all the monads consist in an eternal system, in a complete harmony, which was ordained from the beginning of time, and which constantly persists through the continuous vicissitudes in all the monads. Every monad represents to itself, confusedly or clearly, the whole universe, the whole sum of all that happens, and the sum of all the monads in the universe. The monads of inorganic nature have only ideas which completely neutralize themselves, as those of a man in a dreamless sleep. The monads of the organic world are higher, the lower animals being formed of dreaming monads. In the higher, they have sensation and memory, and in man they have thought. Lange observes: "The monads with their pre-established harmony reveal to us the true nature of things as little as the atoms and the laws of nature. They afford, however, a pure and self-contained conception of the world, like materialism, and do not contain more inconsistencies than this system. But what especially secured the popularity of the Leibnitzian system is the ductile looseness of its notions, and the circumstance that its radical consequences were much better marked than those of materialism. In this respect nothing is more useful than a thoroughgoing abstraction. The tyro who shudders at the thought that the ancestors of the human race might once have been compared with the apes of to-day, comfortably swallows down the monad theory, which declares the human soul to be essentially like all the beings of the universe, down to the most despised mote, which all mirror the universe in themselves, are all small divinities to themselves, and bear within them the same content of ideas, only in various arrangement and development. We do not immediately observe that the ape monads are also included in the series, that they are as immortal as the human monads, and that they may yet, perchance, in the course of development, attain to a beautifully ordered content of ideas. . . . It is very much the same with the much-extolled and much-abused optimism of Leibnitz's system. Viewed in the light of reason, and tested by its real presuppositions and consequences, this optimism is nothing but the application of a mechanical principle to the foundation of the facts of the world. God, in choosing the best of possible worlds, does nothing that would not be quite mechanically produced if we suppose the essences of things to act upon each other. In all this, God proceeds like a mathematician in solving a problem, and he must so proceed, because his perfect intelligence is bound to the principle of sufficient reason—in the result it all comes to the same thing as if we were to deduce the development of the universe from the mechanical presuppositions of a Laplace and a Darwin." (Lange, *History of Materialism*. Boston: Houghton, Osgood & Co., 1880, pp. 130, 131, 132.) The question ever recurs, how can matter produce thought? The assertion by Leibnitz that it is the inherent principle of the monad, it is contended, is only an assertion, a product of the imagination, and the doctrine that a certain combination of atoms produces it, is likewise held to be just as much the result of imagination. That it requires organization to produce manifestations of thought, which we, as physically constituted beings, can comprehend or perceive, is a necessity of the case, and a condition which limits human knowledge. We cannot make a physical demonstration of a purely spiritual subject. If the mind acts or exists without the intervention of matter we are necessarily unconscious of it, and are obliged to search for other evidences than material phenomena, and for the advocate of the production of thought by the correlation of atomic energy to demand that the spiritualist shall accept only physical evidences is equivalent to the dictating the limits of controversy. Four thousand years of experience and 2,000 years of controversy have not settled the question. Perhaps if an instance could be cited in which rapidity of thought had far outstripped all the possibilities of physical methods, it would furnish strong evidence of the immateriality of the human mind, unless, indeed, we adopt Leibnitz's doctrine of monads. Have there been such instances? Is it possible that there ever was a case in which the nervous mechanism, or a part of it, admitted a perfectly unobstructed performance of an intellectual function by the immaterial principle or mind? Can we account in any other manner

for the remarkable mathematical calculating powers of Zerah Colburn (q.v.), who could answer accurately, almost in an instant, such questions as the following, and others much more difficult: How many seconds are there in 11, 15, or 16 years? What is the square of 999,999? etc. This is an instance of the almost perfect adaptability of nervous organization to its uses. It is so much in excess of ordinary—what we term, perhaps improperly—normal mental activity, that it becomes a question whether we are not compelled to regard it as the result of the comparatively unobstructed operations of a spiritual intelligence. The fact that this remarkable talent left him at about the age of 21 would be explained by a spiritualist in one way, and by a materialist in another. An unsolvable question is always capable of receiving opposite explanations. The probabilities may very greatly preponderate to one side, but they are not sufficient to convince, and the most sincere minds may be so constituted as to form opposite conclusions. When the experiments in spontaneous generation above alluded to were shown to be faulty, it was believed by many that the doctrine of evolution, as well as that of more decided materialism, had received a severe blow, but an evolutionist was among the foremost in demonstrating the failure of spontaneous generation, and the majority of evolutionists are probably opposed to the doctrine of spontaneous generation. The results of such experiments do not, however, affect permanently either the doctrine of evolution or of materialism or spontaneous generation. If spontaneous generation ever takes place, it may require conditions which are incompatible with the sealing of boiled infusions in flasks, or their protection from the descent of atmospheric germs by the bending down of open capillary beaks of the flasks. But if it could be satisfactorily proved that spontaneous generation never occurs, it would not aid the establishment of the doctrine of spiritualism. The truth is that the nature of the question does not admit of physical or experimental proof, and, indeed, does not seem to be affected by geological evidence.

The argument for the existence of an intelligent spirit independent of the body, and not subjected to the variations of its physical functions, must, from the necessity of the case, be carried on by the reasoning powers, with perhaps some reliance upon physiological facts as means of explanation; but the most important part of the argument, leaving out the question of a revelation, rests upon the evidences of design. If it is admitted that the works of nature furnish such evidence, then there is a Being whose attributes must be such as to make it probable that the mind of man has not been endowed with intellectual powers and aspirations which are destined to end in nothingness. To maintain that inorganic matter could have arranged itself in the various living forms with all the adaptations of means to ends, both as regards use and beauty, because the Creator does not manifest himself in person, because we are not permitted to perceive him with our senses, is, as Paley has logically said, quite as inconsistent as to deny that a watch is the product of mechanical design merely because the process of its construction had not been the subject of personal observation. The processes of nature do, indeed, take place in ways that are perfectly mysterious and unknown to us. Certain invariable effects are called laws, but the secret springs by which those laws are executed are entirely beyond our ken. We call a certain force the attraction of gravitation, but what, in reality, that attraction is, is no more known to us than if we had not learned to measure or to trace the paths of the planets. We cannot cast aside the evidence furnished by inexorable logic, and that logic tells us that if circumstantial evidence is of value, all matter is moved by supernatural power. Leibnitz and others thought they had discovered that power as residing in the matter itself, but others, and among them perhaps the most acute and broadly observing experimental philosopher the world has ever known, Faraday, have placed it in points and lines of force, for the purpose of giving a scientific expression to certain facts, at the same time acknowledging their utter inability to come any nearer a solution. Faraday, in a lecture on mental education, in 1854, used the following words: "High as man is placed above the creatures around him, there is a higher and far more exalted position within his view; and the ways are infinite in which he occupies his thoughts about the fears, or hopes, or expectations of a future life. I believe that the truth of the future cannot be brought to his knowledge by any exertion of his mental powers, however exalted they may be; that it is made known to him by other teaching than his own, and is received through simple belief of the testimony given." Here is the testimony of one of the most rigid of scientific investigators that the highest evidence of spiritual existence is internal; and why, we may ask, may not such evidence, coming as it does from hundreds of thousands of all classes of persons, the most highly cultured as well as others, be received as well as speculations about the properties of protoplasm or of monads? If unanimity of testimony is of value, certainly there is more of it among the thousands who believe than among the disputants in the scientific arena. But we dismiss all these points with the remark that although, as Faraday says, in a subsequent sentence to the above, that man by reasoning cannot find out God, he is compelled to use his reasoning powers in the study of nature in such a way as to lead him to adopt the best methods of forming a belief as to his relations to time, as well as his present surroundings. The world is full of what to the human understanding are inexplicable facts. Certain persons perform the most irrational acts, not only those which appear to the ordinary understanding to be irrational, but which, according to all the laws of mental philosophy, are known to be irrational; and yet we can give no satisfac-

tory explanation of them. To say that the organism is deranged proves nothing for either side of the question, for the mind, it may be said by one, requires an instrument not deranged to manifest itself, while the other contends that rational thought can only be *produced* by an organism which retains to a certain degree the harmony of its parts, or, in other words, which possesses certain physical relations. In either case, whether the brain is the instrument or the producer of thought, it requires to be in order, and it will be seen that an attempt to demonstrate either the presence or the absence of spiritual power will fall short of actual proof, and that the best we can do is to form a well-founded belief. The great fact that design is stamped upon all the works of nature, must always be borne in mind. We can conceive of no designing power independent of Him whom we call Providence or God, and when we acknowledge his existence we are forced to admit that his creatures must have been the subject of his care, and that he has not left them to grope in blindness throughout all the ages of their past existence without a light more than that which can be furnished by physico-scientific investigations. What, then, it may be asked, is the value of physical research? Its proper fruits or objects, if we reason from analogy and observe the beneficent provisions of surrounding nature, are intellectual enjoyment and the cultivation of a faith, that highest attainment of the understanding, which rests with confidence upon the eternal justice of the unseen government of the universe, and which shall finally show to mankind that their highest aspirations are not idle dreams produced by selfish or morbid longings which have no foundation in the constituted order of nature.

We see in nature the most perfect adaptation of means to ends. The mechanism of the human body perhaps offers the most perfect examples of this. The mechanism of the human hand has furnished a subject for one of the most profound and elegant of the Bridgewater treatises, by sir Charles Bell, and the contrivances found in the structure of the eye are still more illustrative of design. The evidence, however, offered in some of the lower forms of animals, are, as being simpler, more conclusive to the non-scientific observer. We walk along the sea-beach and pick up a mollusk which has recently been washed ashore or dug out of the sand. We remove the shell from the animal, and perceive that its hinge is cased over and interlaced with an elastic, gluey substance, which not only serves to assist in holding the shells in place, but by their elasticity to open them. In some cases the materialist, or the evolutionist might suppose that the living molecules in a certain part of the mollusk might, in accordance with certain physico-vital properties, arrange themselves for the purpose of accomplishing what might be termed an impending function, or a function becoming immediately necessary for the purposes of evolution or further development; but we open another species of bivalve mollusk, and instead of the mere addition or coating of a little elastic glue, we find at the hinge in either shell a chamber, hollowed out as by a mechanical instrument, and occupying the space so formed by the two little cups, an independent and detached elastic pad whose action is that of a spring in opposition to the muscles which close the shells. Nobody can make the examination without being almost startled at what, without irreverence, might be called the legible autograph of the Creator's hand. It is impossible to conceive how any process of gradual evolution, or of abrupt self formation, if such a phenomenon can be imagined, could bring about such a result. Now, it is not within the possibilities of science to demonstrate whether this mechanism has been brought about by the voluntary act of the Creator or by evolution. We are, therefore, left to adopt the most reasonable, the most probable, conclusion; and it is here, perhaps, that people will always differ. Some will contend that evolution is the only natural process of creation, while the mass of mankind will probably always think that the wonderful works of nature are too vast, too mighty, to be the production of anything less than omnipotent design.

Philosophers have been censured by believers in Bible revelation for sometimes calling the human body a human machine; but if the soul is independent and superior to the body, then the body must be a machine. Looking upon the subject in this light we can explain the influence of education, and also why the mind cannot manifest itself till its instruments, the parts of the nervous mechanism, are properly prepared. A perfectly intelligent soul might inhabit the body and yet not be able to manifest itself. Further than this it has so far been, and will probably always continue to be, unavailing to attempt to reason upon this subject with the expectation of producing any positive evidence of the existence of a spiritual nature. This is the point at which belief or disbelief is adopted, and upon the foundation of either of these conclusions man's reason may continue to build systems, which, indeed, from the influence they exert upon the individual and upon society, may furnish evidences of their correctness or falsity. To be able to have a clearer view of the unseen world than that which science or logic offers, the veil which conceals the truth from us must be lifted, or we must believe it has been lifted, that a revelation has been made, and that the human race has not been obliged to live for thousands of years with no light except that furnished by human reason—that reason, notwithstanding its wonderful powers, which we often have cause to distrust, since the most powerful intellects have come to such opposite conclusions, starting from the same premises. To what extent is it reasonable and just to place ourselves under the guidance of faith? In the discussion of human affairs we perceive that it is one of the noblest of qualities, and that without it society would be a thousand

times worse than the severest pessimist asserts. Therefore faith is one of the fundamental principles of our nature, and by no means to be excluded from the elements of evidence which we are to examine in forming an opinion as to whether this is a spiritual as well as a material world, and all the reasoning which might be attempted could never prevent the mass of mankind from resting on a foundation which ministers to their hopes, their sentiments, their affections; but, on the other hand, all the persuasive eloquence of the most exalted zeal of thousands of the believers in the spirituality of man's nature will be powerless in the presence of the restless efforts of many earnest and sincere minds, who cannot find it in their natures to relinquish the search after a truth which their opponents tell them can be found only by the aid of faith.

MATHER, COTTON, D.D. (*ante*), having received his elementary education under his father's care, and at the free school in Boston, was able on entering Harvard college, at the age of 12, to read not only Virgil and other Latin classics, but Homer and Isocrates in Greek. On taking his first degree at the age of 16 the president addressed him in a Latin speech, praising his past conduct and attainments, and predicting a glorious future. The descendant of a long line of ministers, he himself desired to enter the ministry, but an impediment of speech prevented, and he began to study medicine. Having overcome the infirmity he studied theology, and in 1680 became assistant to his father in the North church, Boston, and in 1684 was ordained as co-pastor. While zealous and faithful as a preacher, he found time to write for the press, and published numerous sermons and books on practical piety, at the same time accumulating materials for various intended treatises. He began also the study of some modern languages, among them the Iroquois Indian. He believed that ministers should concern themselves in politics, and, desirous of maintaining the ascendancy of the clergy in civil affairs which had long prevailed, but which he saw declining, he prepared in 1689 the declaration of the people justifying the imprisonment of governor Andros. Sharing in the superstitions of the age, he firmly believed in witchcraft, and suspecting that there were in Boston devotees of Satan, he applied himself earnestly to detect them. An Irish woman having been denounced as a witch, and Mather having no doubt that she was under the influence of an evil spirit, she was tried, condemned, and executed. His book on witchcraft, published with the recommendation of all the ministers of Boston and Charlestown, was entitled *Memorable Providences relating to Witchcraft and Possessions; with Discoveries and Appendix*. It was eagerly read in the colony, and was republished in England with a preface by Richard Baxter; being pronounced perfectly convincing. With magistrates and people Mather urged the necessity of eradicating the sin. In 1692 the children of Mr. Parris, a minister of Salem, becoming strangely afflicted, accused an Indian servant of having bewitched them by her incantations. She was cast into prison, and confessed that she was guilty. The girls began to accuse others of being witches. The magistrates applied to Mather for advice, and he urged the adoption of the most stringent measures. The excitement was intense. By May, in Salem, 100 persons were in jail. The deputy-governor and 5 magistrates went from Boston to conduct the preliminary examinations, and on the arrival of the new charter a special court was appointed to try the accused. Several, though protesting innocence, were declared guilty and hung. Those who confessed their guilt and were penitent, had their lives spared. By September 20 persons had been put to death; 8 more were under sentence of death; 55 had confessed their guilt and escaped; above a hundred more were lying in jail, and twice that number were at large, suspected. The last execution was that of a Mr. Burroughs, formerly a minister at Wells, which made a deep impression on the country. A cry of horror was raised. A reaction began which Mather could not arrest. He drew up, with the concurrence of the governor, the president of Harvard university, and the ministers, an elaborate justification of what had been done, expressing "pious thankfulness to God for justice being so far executed among us," in a work entitled *The Wonders of the Invisible World: Observations upon the Nature, the Number, and the Operations of the Devils*. But it had no effect. In the trials that followed all the accused were acquitted. While some of the judges in the religious assemblies prayed for pardon if they had shed innocent blood, Mather showed no signs of penitence or regret. In his *Magnalia Christi*, published 9 years afterwards, he indeed admits that perhaps there had been "a going too far in that affair." His influence now declined. Though admitted to be pre-eminent among his countrymen for genius and learning, he was twice passed over in the election of president of Harvard college. But he continued to labor with zeal. He was a voluminous writer. His *Magnalia Christi Americana* was a collection of facts for an ecclesiastical history of New England. Among his other works are *Essays to do Good*; *Christian Philosopher*; and *Directions to a Candidate for the Ministry*. The work on which he labored from his 31st year to his death is entitled *Illustrations of the Sacred Scriptures*, and the manuscript is now in the library of the Massachusetts Historical Society. He was the first, with Dr. Boylston, to introduce into this country inoculation for small-pox. In 1713 he was elected, on account of his *Curiosa Americana*, a fellow of the royal society of London, the first American who had received that distinction.

MATHER, RICHARD, D.D., 1596-1697; b. Lowton, Lancashire, Eng.; studied at Oxford in 1618; became parish minister of Toxteth, Lancashire, where he remained 15 years; was suspended in 1634 for non-conformity to the established church; was restored

through the influence of friends, but again suspended; removed to New England in 1635; was minister at Dorchester, Mass., 1636-69. Of his six sons, four were distinguished ministers and authors. He was the author of some theological treatises, chiefly on church government, and at the request of the Cambridge synod in 1648 he drew up a form of discipline, which was adopted. His *Journal, Life and Death*, was published for the Dorchester antiquarian and historical society. He was an earnest preacher, and a man of learning. He assisted Eliot in the New England version of the Psalms. He published a discourse on the *Church Covenant*; a treatise on *Justification*, and an elaborate defense of the churches of New England.

MATHER, SAMUEL, 1626-71; b. Toxteth, Eng.; graduated at Harvard college in 1643; preached at Boston, Oxford, and Dublin. At Trinity college, Dublin, he became senior fellow. He is the author of *Old Testament Types Explained and Interpreted*.

MATHER, SAMUEL, D.D., 1706-85; son of Cotton Mather; graduated at Harvard college in 1723; was ordained in 1732, and was pastor of several Congregational churches in Boston. He wrote a *Life of Cotton Mather* in 1729, and also some sermons, pamphlets, and short poems.

MATHEWS, CHARLES JAMES, 1803-78; son of Charles Mathews, the comedian; educated as an architect and gave promise of success in that profession, but his natural taste was for the stage, and as a light comedian he soon achieved a high place. He married in 1838 the noted actress and singer, madame Vestris, and in connection with her carried on successively the Olympic and Lyceum theaters. London. He visited the United States in 1839, 1858, and 1869, and on the second occasion married his second wife, Mrs. Davenport, known on the stage as Lizzie Weston. He played also in Paris and Australia, and everywhere made many warm admirers, not only of his professional talent but also of his personal qualities. He was the author of several plays, perhaps the best of which was *My Wife's Mother*. He also produced several entertainments after the manner of his father's "At Home."

MATHEWS, CORNELIUS, b. N. Y., 1817; educated at the university of the city of New York, and in 1837 called to the bar. Before and after his admission he contributed in verse and prose to various periodicals, such as the *Knickerbocker Magazine*, the *New York Review*, and the *American Monthly Magazine*. He has also contributed to the *Literary World*, and he was for a time an editor of *Arcturus*, a now forgotten monthly magazine. Of his voluminous works we may mention *Behemoth*, a romance, 1839; *The Politicians*, a comedy, 1840; *Witchcraft*, a tragedy, which was produced on the stage in 1846, and subsequently republished in London; and *False Pretenses*, a comedy, 1856. He has worked for many years in behalf of an international copyright, has published a number of addresses on that subject, and organized a copyright club, for whom he drew up an *Address of the Copyright Club to the American People*.

MATHEWS, GEORGE, 1774-1836; b. near Staunton, Va., and admitted to the Georgia bar in 1799; in 1805 was appointed judge of the superior court of the territory of Mississippi, and in 1806 transferred in the same capacity to New Orleans. After the organization of Louisiana as a state he was appointed presiding judge of the supreme court, and filled the post to the time of his death. His decisions form an important part of the judicial history of the state.

MATHIAS, THOMAS JAMES, 1750-1835; b. England; educated at Trinity college, Cambridge, of which he became a fellow. He was appointed treasurer of the household to queen Charlotte, from which office he retired with a pension in 1818. The later part of his life was passed at Naples, and during his long residence in Italy he became thoroughly acquainted with its language and literature. He wrote Italian verses with considerable fluency, but his principal service to Italian literature was his edition of Tiraboschi's standard work, *The History of Italian Poetry*. His first English production, which appeared in 1781, was an imitation from the Norse, called *Runic Odes*. This was followed, two years later, by an *Essay on the Evidence relating to the Poems attributed to Thomas Rowley*. His best work is *The Pursuits of Literature*, which was published anonymously between 1794 and 1797. The chief interest of the *Pursuits* lies in its satirical critical notes, which made a sensation at the time.

MATSYS, or MESSYS, QUENTIN, 1460-1530; b. in Louvain; bred a blacksmith, early enamored with a painter's daughter, and led to become a painter. His subjects are principally religious, marked by a hard treatment in outline, but great force of expression. His "Descent from the Cross," in the Antwerp museum, was praised by sir Joshua Reynolds for heads scarcely exceeded by those of Raphael. "The Misers," which has been made familiar by engravings, is one of his noted works, which are to be found in nearly every great gallery in Europe.

MATTAWA, the proposed e. terminus of the Canadian Pacific railway, at the junction of the Ottawa and Mattawa rivers, in Nipissing district, Ontario, 189 m. above Ottawa. The Hudson's Bay company had a trading-fort at this point.

MATTEAWAN', a village in the t. of Fishkill, Dutchess co., N. Y., situated on the Dutchess and Columbia railroad and on Fishkill creek, 1½ m. from the Hudson, at Fishkill Landing; pop. about 2,000. It has manufactures of felt goods, hats, files, lawn-

mowers, wood-working machinery, etc.; also four churches, a newspaper, and good schools.

MATTER (*ante*). See ATOM; ATOMIC THEORY, *ante*.

MATTER, JACQUES, 1791-1864; b. in Alsace; educated at Strasburg, Göttingen, and Paris; prof. of history and director of the college of Strasburg in 1820; in 1832, Guizot made him inspector general of studies, and of libraries in France, and counselor of the university. He was a lecturer on ecclesiastical history, a Protestant, and the author of a great number of standard works, among which are: *Histoire universelle de l'Eglise cretienne*, 1839; *De l'influence des moeurs sur les lois et de l'influence des lois sur les moeurs*, 1843; *Histoire des doctrines morales et politiques des trois derniers siecles*, 1837; *de l'état moral, politique, et literaire de l'Allemagne*, 1847; *Philosophy de la religion*, 1857. His treatise on the influence of manners upon law, etc., drew from the academy a special prize of 10,000 francs.

MATTERHORN (Fr. Mont Cervin; Italian, Monte Silvio), the grandest mountain mass of the Alps, located near Zermatt in Switzerland between the Canton Valais, and the Val d'Aosta in Italy. Its height is 14,805 ft., but that fact alone gives little idea of the sublimity of its abrupt rise above the great range of which it is the sentinel peak. The vast glaciers around it have their upper sources in snows at the foot of this mighty crag, which rises on its northerly face in a sheer precipice nearly 4,000 ft. above them. Seen from the pass of St. Theodule or Mont Cervin it takes the form of a craggy cone, apparently inaccessible. From the Italian side one sees its neck or comb connecting it with the rest of the range; and this side forms the only suggestion of an approach to its summit. Previous to 1858 it was deemed impossible of ascent. The professional guides of the Alps held it in awe. But English enthusiasts in mountain climbing had long looked upon its defiant steeps with longing eyes. During the summers of 1858-59 two well-organized parties attempted it and could get no further than about 2,200 ft. below its summit. In July, 1860, three young Englishmen of the name of Parker, without a guide, succeeded in mounting to the height of 12,000 feet. Prof. Tyndall in 1860-61, seems to have been possessed with a fever of desire to tread its summit; and made a series of determined attempts, in one of which he had a marvelous escape from death in an avalanche. In spite of his courage and skillful use of means he was baffled, after reaching a point 500 ft. higher than had been reached before. In July, 1862, he made a third attempt and reached the height of 13,970 ft.; but accident and the elements were against him, and again he was disappointed. It was reserved for a London engraver, August Edward Whymper, who had recently gained his first experience of mountain climbing in the French Alps, to make the first ascent to the summit: after two carefully planned but unsuccessful efforts in the summers of 1863-64, he, with a party of friends succeeded, July 15, 1865, in reaching the summit. But it ended in a fearful tragedy. Lord Francis Douglass, the Rev. Charles Hudson, Mr. Hadow, and four guides, made up the party; starting from Zermatt on the 14th. While descending in fine spirits a miss-step by one of the party caused the fall of a guide, and the breaking of their connecting rope; when the three gentlemen named, and one of the best guides were hurled down the vertical face of the mountain upwards of 3,000 feet. Three days later the summit was reached from the Italian side by Jean Antoine Carrel, a professional Swiss guide, with others. Mr. Crawford Grove and party reached it in 1867. Mr. Elliot and two guides in 1868 ascended it from the north side. Prof. Tyndall ascended it about the same time from the south side, passed over its crest, and descended on the north. Its ascent is now made less perilous by a hut built at a height of 12,526 ft., and by the familiarity of guides with the most dangerous points, and the means to surmount them. Tyndall's *Hours of Exercise in the Alps* gives a vivid description of his attempts to ascend the Matterhorn in 1860-61. Whymper's *Scrambles Amongst the Alps* published in 1871 is, however, the most remarkable book of mountain climbing ever published; and besides being devoted largely to the attempts to scale the Matterhorn, is profusely illustrated with drawings sketched and engraved by himself.

MATTEUCCI, CARLO, 1811-68; b. at Forli, Romagna, Italy; of a middle-class family; educated in the university of Bologna, and doctor of mathematics in 1829. From 1831 he devoted himself to the study of electricity and chemistry, became a friend and co-laborer of Arago, and through the influence of Humboldt was made professor of physics in the university of Pisa. He became the inventor of means of applying electric currents to the human body, and one of the most advanced investigators of the physiological effects of electricity. Among his works are: *Essai sur les phénomènes électro-physiologique des animaux*, 1840; *Traité des phénomènes électro-physiologique des animaux*, 1844. His essays in the "Philosophical Transactions" of London and in the scientific reviews of Paris, Geneva, and Italy were of high value. As a politician also his career was distinguished. As commissary under Charles Albert he sought first to avert, and then to ameliorate, the Austrian rule in Italy after the suppression of the revolution of 1848: was senator of the Tuscan assembly in 1848; commissioner to Paris on the annexation of Piedmont in 1859; member of the Italian senate in 1860; and bearer of the commission of the congress of Italy to make Victor Emmanuel king of Italy. In 1862 he had the revision of the public system of education for Italy, under the Rattazzi administration;

and in 1864 published a valuable work on national instruction entitled *Lettres sur l'instruction publique*.

MATTHEW, THE EVANGELIST, is regarded by most of the ancient Christian writers, and by the best modern commentators, as identical with the publican whom Mark and Luke name Levi. If their view be correct, Matthew—signifying in Hebrew “the gift of Jehovah”—was perhaps a surname analogous to Peter as added to Simon, and to Boanerges as applied to James and John. He was early called to be a disciple, and was afterwards numbered among the twelve apostles. He was a publican, probably one of the subordinate class who were charged with collecting the taxes in a limited district. Having left all to follow Jesus, he also made him a feast in his house, at which a great multitude of publicans were present as invited guests. After the record of his choice as one of the apostles, given by three evangelists—of whom only Matthew speaks of himself as the publican—no mention is made of him in the gospels, except generally as they all speak frequently of “the twelve,” and, after the departure of Judas, of “the eleven;” and in the Acts, having been mentioned once by name, he is included afterwards among “the eleven,” and probably also among “the apostles.” A tradition, as old as the 1st c., says that he continued in Jerusalem about 15 years after the ascension. With this accords the statement of Eusebius, made long afterwards, that he preached to his own nation before he went to foreign countries. Among the countries mentioned by other writers are Ethiopia, Persia, Macedonia, Media, and Parthia. Several of the earlier writers agree in numbering him among the few apostles who did not suffer martyrdom, though a later tradition affirms that he, too, sealed his testimony with his blood.

MATTHEW, GOSPEL OF, placed first in all arrangements of the four gospels, and also probably one of the first written, was from the beginning acknowledged and widely diffused as one of the canonical books of the New Testament. From Papias, who closely followed the apostles, there is continuous chain of trustworthy witnesses that Matthew the apostle wrote a gospel, and the abundant quotations in the fathers, down to Irenæus and Justin Martyr, prove that the gospel then received as his was the same as that which we have. These early witnesses agree also in saying that Matthew wrote his gospel with primary reference to the Jewish Christians of Palestine, and their statement is confirmed by internal evidence. One great object of the author plainly was to exhibit Jesus of Nazareth as the Messiah whom the types of the Old Testament prefigured and its prophets foretold. This the opening sentence of his gospel shows, declaring Jesus Christ to be the son of David and of Abraham, and this the advancing chapters, recording events as “realized prophecy,” keep constantly in mind. Still no evangelist exhibits more clearly also the ultimately universal diffusion of the gospel message through the world. Even the beginning of the ministry of Jesus, as Matthew records it, gave light not only to Jews, but also to Galilee of the Gentiles; and, at the close, the first gospel gives, equally with the second and third, the universal command, “Go ye and make disciples of all nations.” The general testimony of the early writers is that Matthew wrote his gospel in Aramaic; that is, in the dialect of the Hebrew which was then spoken in Palestine. Yet, while all the fathers of the church assert the Hebrew origin of the gospel, as Olshausen remarks, “They, without exception, make use of the existing Greek text as canonical Scripture, and that without doubt or question, or anything that would lead to the belief that they regarded it as of less authority than the original Hebrew, or possessed it in any other form than that which we now have.” And if the Hebrew gospel had ever been clothed with supreme authority as the only one written by Matthew, a Greek translation could not have been substituted for it without opposition, or without leaving some traces of the process by which it had been done. But nothing of the sort occurred. The Greek text itself also, according to the judgment of careful critics, presents no marks of being a translation, but many of being an original work. The correspondence of the Greek text with the Greek of Mark and of Luke points also to a Greek original. All the ancient versions also, even the Peshito Syriac—the very language which corresponds with the Aramaic—were taken from the present Greek text. The summing up of the testimony, therefore, favors two originals, both from Matthew, both used at first as occasion required, and the Greek, diffused abroad much more widely, finally remaining alone in circulation and use. That a full account of the life of Jesus should be needed at first among the Jews, in both Hebrew and Greek, is illustrated by Pilate’s action in writing above the cross, in three languages, the single declaration, “This is Jesus, the king of the Jews,” and by the apostle John’s record that one reason why many of the Jews read the title was that it was written in Hebrew, Greek, and Latin.

The contents of the gospel may be divided into eleven sections: I.—The ministry of Jesus: Chapters i.–iv. containing his genealogy, coming down from Abraham, and his birth at Bethlehem; the visit of the wise men, the flight into Egypt and the return; the ministry of John, the baptism of Jesus, followed by the descent of the Spirit and the voice from heaven; the temptation of Jesus, the beginning of his ministry, the calling of his first four disciples, and his first circuit in Galilee, accompanied with an outburst of power over all kinds of disease. II.—The new law given in the sermon on the mount, v.–vii.: The beatitudes; his disciples compared to the salt of the earth and the light of the world; the law and the prophets to be fulfilled; new expositions of various com-

mandments; directions for alms-giving, for prayer—of which a model is given in “the Lord’s Prayer”—and for fasting; counsels against laying up earthly treasures, and against anxious thought; command not to judge others or to mark their faults; counsel not to cast pearls before swine; promise that prayer shall be answered; the “golden rule” given; exhortation to enter the strait gate and narrow way; warning against false prophets and false professors; the emblem of houses built on the rock and on the sand. III.—Record of events exhibiting Jesus as a doer of mighty works, viii., ix.: The leper cleansed; the centurion’s servant healed; Peter’s mother-in-law cured; multitudes of sick persons healed and many demons cast out; the storm on the lake calmed; the legion of demons cast out of the man and allowed to enter the swine; the man sick of the palsy forgiven and healed; Matthew called and publicans and sinners received; the woman that touched his garment healed, and the ruler’s daughter raised; the two blind men restored and the dumb demon cast out; the second circuit of Galilee and the general cure of sickness and disease. IV.—The choice of the twelve apostles, x.: Their names given and the varied instructions to them recorded. V.—Doubts expressed and opposition exhibited, xi., xii.: The inquiry sent by John from the prison, the answer returned, the testimony of Jesus concerning him; the unrepenting cities condemned; thanksgiving to the Father; invitation to the weary; authority claimed over the Sabbath, the withered hand healed, the Pharisees silenced, and their council against him; his withdrawal, followed by the healing of great multitudes; a demon, blind and dumb, cast out; the opposition of the Pharisees and their consequent condemnation. VI.—Parables relating to the kingdom of heaven, xiii.: 1–52: Of the sower; the tares among the wheat; the mustard seed; the leaven; the treasure hid in the field; the pearl of great price; and the net cast into the sea. VII.—Effects of the ministry of Jesus on various classes of people, xiii.: 53–xvi.: 12: On the inhabitants of Nazareth; on Herod, explained by his treatment of John the Baptist; on the men of Gennesaret; the multitudes whom he feeds; the Pharisees and Scribes; the woman of Canaan. VIII.—Revelation concerning his divine nature and his sufferings, with instructions to the disciples, xvi.: 13–xviii.: Simon Peter’s confession of faith in him; his sufferings foretold; his transfiguration, followed by the casting out of a demon from a child; the temple-tax paid; instructions concerning humility, illustrated by a child, and concerning forgiveness, enforced by the parable of the debtors. IX.—Events during the journey from Galilee to Jerusalem, xix.–xxiii.: Law concerning divorce; benediction on little children; answer to the inquiry concerning the attainment of eternal life, and rewards promised to the disciples; parables concerning the laborers in the vineyard; his sufferings again foretold; the ambitious request of James and John; two blind men restored to sight; the entrance into Jerusalem; the cleansing of the temple; the hosannas of the children; the fig-tree withered; the chief priests and elders silenced; the parables of the two sons and the vineyard, of the husbandmen and the vineyard, and of the marriage of the king’s son; the hypocritical question of the Pharisees, the scoffing question of the Sadducees, the earnest question of the lawyer, and the silencing question of Jesus; woes pronounced on the Pharisees and on Jerusalem. X.—Last discourses, xxiv., xxv.: The destruction of the temple foretold to be attended and followed by wars, tribulations, false Christs and prophets, and, at some unknown time, by the coming of the Son of Man; the suddenness of his coming compared to the flood and enforced by the parables of the servant and his lord, of the virgins and their lamps, of the talents, and of the shepherd dividing the sheep from the goats. XI.—The crucifixion, burial, resurrection, and final commission to the disciples.

MATTHEW PARIS, or MATTHEW OF PARIS. See PARIS, MATTHEW, *ante*.

MATTHEWS, a co. in e. central Virginia; pop., '80, 7,501—2,424 colored. The form of the co. is that of a peninsula, the Chesapeake bay lying on the e., Mobjack bay on the s., and Piankatank river on the n. and n.west. The soil is naturally sandy and the staples are Indian corn and pork. There is some manufacturing and fishing. Chief town, Matthews Court House.

MATTHEWS, GEORGE, 1739–1812; b. in Augusta co., Va.; served with great distinction in the revolutionary war; received nine wounds in the battle of Germantown and was taken prisoner. In 1785 he removed to Oglethorpe co., Ga., and was governor of that state 1793–96; member of congress 1789–91; engaged in military operations in Florida in 1811, with the rank of brig.gen. of militia.

MATTHEWS, JOHN, 1744–1802; b. S. C.; distinguished for patriotism during the revolutionary war; speaker at one time of the South Carolina house of representatives; associate justice of the supreme court in 1776; member of congress in 1778–83; governor of South Carolina in 1782–83; and in 1784 a judge of the court of equity. Died at Charleston.

MATTHIAS, SAINT, one of the 70 disciples, chosen an apostle by lot to fill the place vacated by the treachery and suicide of Judas. Of his origin, family, history, the scene of his labors, the date and place of his death, nothing is known, nor is there any tradition on which reliance can be placed.

MATTHIAS, Emperor of Germany, 1557–1619; son of Maximilian II., and grandson of Charles V. His eldest brother, Rudolf II., had succeeded to the throne upon the death of their father. Rudolf resented the influence exerted by Matthias in the affairs

of the German empire, and the latter, to strengthen himself in another quarter, became the champion of the Netherlands, in whose affairs he exercised a great authority till 1580, when he was compelled to give way to the ascendancy of the prince of Orange. Upon the death, in 1595, of his brother Ernest, archduke of Austria, he governed the archduchy, where the principal feature of his administration was his persecution of the Protestants. In 1606 he restored order in Hungary, which had formed a coalition with Turkey and Transylvania against the Hapsburgs. Two years later, with the aid of a league which he had formed between Hungary, Silesia, and Moravia, he forced upon Rudolf the cession of Austria, Hungary, and Moravia, and at the same time, was guaranteed the succession to the Bohemian crown. Matthias afterwards allied himself with the Bohemians who were then in revolt, and compelled Rudolf to cede him Silesia and Lusatia, in addition to Bohemia. Rudolf died without issue in 1612, and Matthias was at once chosen his successor. The Turks had invaded Hungary, and Matthias, who was able to offer them no substantial resistance, was compelled to sue for peace. In the later days of his Austrian administration, he had made overtures to the Protestants, whom he had formerly persecuted; and he had encouraged the Jesuits. He soon found himself in conflict with both. A Protestant league had been established in 1608, of which the count palatine Frederic IV. was chief; and a counter Roman Catholic league had been organized in 1609. Matthias attempted to bring the latter, which was then under Bavarian management, under Austrian influence; and failing in this, framed a decree against both the Roman Catholic and Protestant leagues. The decree failed of its effect, neither league paying any attention to it. The administration of Matthias proved a failure, and he made of his ill health an excuse for withdrawing from public affairs. In 1617 he made the archduke Ferdinand, afterward the emperor Ferdinand II., king of Bohemia; and the next year, substituted him for himself, on the throne of Hungary. The Bohemians revolted against Ferdinand, enraged by the severity of his religious persecutions; the insurrection at Prague, in 1618, gave the signal for the outbreak of the thirty years' war, and the last days of Matthias were embittered, not only by his own failure, but by the reverses which the Bohemians inflicted upon Ferdinand.

MATTHIAS I., THE GREAT. See MATTHIAS CORVINUS, *ante*.

MATTHIAS, b. Washington co., N. Y., in 1790; a religious fanatic and impostor. His real name was ROBERT MATTHEWS. He kept a country store, and having failed in 1816, removed to New York. In 1827 he resided in Albany, and became much excited by the preaching of the Rev. Drs. Kirk and Finney. He was very earnest in the temperance cause, claimed to have received a divine revelation, and commenced street preaching, endeavoring to convert the city of Albany. His preaching being unsuccessful, he predicted the destruction of the city, and went secretly to New York where he deluded several respectable people. Being accused of poisoning one of his wealthy disciples in whose family he lived, he was tried and acquitted. After the exposure of his impostures he left and is said to have died in Arkansas. W. L. Stone of New York published *Matthias and his Imposture*.

MATTHIAS, or MATTHIESEN, JOHN. See ANABAPTISTS, *ante*.

MATTHISSON, FREDERIC VON, 1761-1831; b. Germany; educated at the school in Klosterbergen, and studied theology at Halle. He had been educated by his grandfather, a Protestant minister, with a view to entering the church, but his fondness for literature led him to give up his design of taking orders, and he took private pupils at Heidelberg and Mannheim. After passing two years near lake Geneva, where he enjoyed the society of the philosopher Bonstetten, he became private tutor to the son of a merchant in Lyons. He returned to Germany in 1792, and two years later was appointed reader to the princess of Anhalt. He accompanied her in her travels through Switzerland, the Tyrol, and Italy, and upon her death in 1812 was taken into favor by the king of Württemberg. Attached to the suite of the duke of Württemberg, he revisited Italy in 1819, and resided for some time at Florence. He is one of the most popular of the German lyric poets, and as a prose writer holds a respectable rank. His complete works including his earlier *Schriften und Erinnerungen* were published at Zurich, 1825-29. His verse is smooth and melodious, dwelling with predilection on pictures of rural life, and animated by a gentle fancy. One of the best of his lyrical pieces, his *Adelaide*, was set to music by Beethoven. Besides his original work, he made a selection from the lyrical German poets, which was published at Zurich in 20 vols., 1803-7. His posthumous works were collected and published in 1832.

MATTISON, HIRAM, D.D., a distinguished divine of the Methodist Episcopal church; 1811-68; b. Norway, Herkimer co. N. Y. The first years of his early manhood were spent in teaching, but at the age of twenty-three his mind turned to the ministry, and in 1836 he entered the Black River conference; was stationed at Watertown and Rome; in 1850 and 1852 was made secretary of the conference; removed in 1852 for his health to New York; was pastor of John street church, and afterwards of Trinity M. E. church in 34th street, which he organized. He labored with great earnestness to persuade the general conference in 1860 to take action against all slaveholding in the church; but failing in this he withdrew from the Methodist Episcopal church, Nov. 1, 1861, and became pastor in St. John's Independent Methodist church. He returned in 1865 to the

denomination that he had left, and was appointed to Trinity M. E. church in Jersey City, where he died. The last year of his life he was cor. secretary of the American and Foreign Christian union. Dr. Mattison was an eloquent preacher. He wrote with great rapidity, and his works were numerous. The following are some of the most prominent of his published works: *A Scriptural Defense of the Doctrine of the Trinity*; *Tracts for the Times*; *Elementary Astronomy, accompanied with Maps*; in 1850 an improved edition of *Burritt's Geography of the Heavens*; *High School Astronomy*; *Spirit-rapping unveiled*; *The Wesleyan Doctrine of Perfection*; *Sacred Melodies*; *Minister's Pocket Manual*; *Impending Crisis*; *Immortality of the Soul and Resurrection of the Body*; *Select Lessons from the Holy Scriptures*; *Defense of American Methodism*; *Popular Amusements*. He left an unfinished treatise on *Depravity in its Relation to Entire Sanctification*; and the outlines of other theological works. His contributions to the periodical press were numerous and valuable. He was the author of several poems of merit.

MATTOON, EBENEZER, 1755-1843; b. Amherst, Mass., and graduated at Dartmouth in 1776; joined the revolutionary army, served as lieut. of artillery in the battle of Bemis Heights in 1777, and was promoted to the rank of major. After the war he settled in his native town as a farmer; was often elected to the legislature, and for 20 years served as sheriff of Hampshire co.; member of congress in 1801-3; maj.gen. of state militia from 1797 to 1816, and adj.gen. in the latter year; col. of the ancient and honorable artillery company of Boston in 1817, and member of the Massachusetts constitutional convention of 1820. During nearly 25 of the last years of his life he was blind.

MATURIN, CHARLES ROBERT, 1782-1824; b. Dublin, Ireland; educated at Trinity college. He took orders in the Anglican church, became curate of St. Peters, and as a preacher is said to have been eloquent and impressive, but is chiefly known as a roman-cist and dramatic writer. His most noted novels are *Fatal Revenge*, (1807); *Milesian Chief*; *Women, or Pour et Coutre*; and *Melmoth, the Wanderer*. All and especially the last named are of that lurid and sensational style, blending the supernatural and the horrible, to which the works of Mrs. Radcliffe and Monk Lewis had accustomed the public in the early part of the century. That Maturin was possessed of genius cannot be denied; but it was for the most part misdirected, and, of the elements now considered requisite among first-class writers of fiction, vigor and a vivid imagination were the only traits to be found in his work. As a dramatist his only successful production was *Bertram*, a wild and uneven tragedy marked by most of the characteristics of the novels. This was produced in 1816 under the patronage of Scott and Byron, and met with brilliant success, the author clearing £1000. In his later years, like too many of his contemporaries, Maturin was in continual financial embarrassment.

MAUBEUGE, a fortified t. in the n. of France upon the river Sambre; pop. about 14,000. It has manufactures of iron bars, hardware, marble, beer, and linen thread; and commerce in slates, oils, marble, and iron. The town was founded in the year 650. It has been by turns under the rule of Spain, Germany, England, and France; was captured and burned in 1477 by Louis XI.; in 1543 by the son of Francis I., in the war with Charles V., and again burned; in 1553 by Henry II., and again burned. In 1637 it was subject to the governor of the Low Countries; in 1680 Louis XIV. caused it to be refortified; in 1815 it fell into the hands of the allies, and was held by Russia till 1818.

MAUCH CHUNK, a borough in Pennsylvania, capital of Carbon co.; situated on the Lehigh river, at the point where it passes through the Mahoning mountain; pop. of township, 70, 5,210; of borough, 3,841. It is on the Lehigh Valley railroad, the New Jersey Central railroad, and the Lehigh canal; is distant from Philadelphia 89 m.; from New York, 121 miles. This point forms the eastern extremity of the southern anthracite coal region of Pennsylvania, while its situation and surroundings are picturesque and romantic in the extreme, and cause it to be very generally visited as a summer resort by tourists in search of striking natural scenery. Nine m. west of the village are the Summit Hill coal mines, which are celebrated as among the most productive in the state. The coal was formerly carried thence by means of a gravity railroad, called the "Switch-back," to Mauch Chunk, the cars returning by a similar road to the mines; this road is now used for tourists and excursions, and the coal is transported through a tunnel. The borough is extensively built up with fine residences, and contains several public institutions, churches, and schools. Mount Pisgah, and mount Jefferson, ascended by the road already mentioned, are points for the attention of excursionists, from which can be gained a magnificent view of the Lehigh valley and the surrounding scenery. Summit Hill offers a special attraction in a burning mine which has been on fire since 1832. Glen Onoko is another and more fascinating place of resort, two miles from the village.

MAUDSLEY, HENRY; b. England, 1835; educated at University college, London, where he took a course of medical study. He received the degree of M.D. from the university of London, in 1857, and soon after became physician to the Manchester royal lunatic hospital, where he remained till 1862. He was elected a fellow of the royal college of physicians and surgeons in 1869, to which he became Gulstonian lecturer in 1870. Dr. Maudsley is editor of the *Journal of Mental Science*, and has made a specialty of the study of lunacy, and mental diseases. He has published *The Physiology and Pathology of Mind*; *Body and Mind*; *Responsibility in Mental Disease*. He is now professor of

medical jurisprudence in University college, London, and consulting physician to the West London hospital.

MAUDUIT, ISRAEL, 1708-87; b. Exeter, England; educated for a dissenting minister, but never entered the profession; went into mercantile business with a brother and accumulated a fortune, and in 1763 was appointed to represent the interests of the province of Massachusetts, of which his brother Jasper was the nominal agent. He was made collector of Southampton in 1765; espoused the cause of the colonies in the discussions preceding the revolution, writing several pamphlets upon the subject; at a later day defended with his pen the cause of American independence, calling lord Howe and sir William Howe to severe account.

MAUDUIT' DUPLESSIS, THOMAS ANTOINE, Chevalier de, 1753-91; b. France. He joined Rochambeau's fleet sent to help the United States in the war for independence. In 1787 he was made commandant of Port-au-Prince. On the receipt of the decree of the French national assembly freeing the slaves, he refused to execute their orders, leagued with the governor against the authority of the French republic, dissolved the colonial assembly, formed a "royal corps" nick-named the *pompom blancs*, and succeeded by the arbitrary violence of his measures in opposition to the home government, in producing a counter revolution in which he was killed.

MAULE, a province of Chili lying between Itata and Maule rivers, and bounded by the districts of Talca, Senares, Nuble, and by the sea; 2,918 sq.m.; pop. 118,474. The soil is rolling but fertile; the staples are grain, wine, tobacco, and cattle. Wine and tobacco are exported to some extent. Chief towns are Cauquenes and Constitucion, the first being the capital and the latter a place of extensive trade, mainly with Valparaiso. The province has one railroad reaching from Chillan to Curico.

MAULE RIVER, rises in the Andes mountains, not far from the peak of Descabezado, and after flowing for over 150 m. in a westerly direction through Chili, empties into the Pacific about 100 m. n.e. of Concepcion and near Constitucion. It is navigable for only a few miles. It has several branches of which the chief is the Guanutil.

MAUMEE BAY, at the w. end of lake Erie, and at the mouth of the Maumee river; a shallow body of water about 8 m. in diameter each way, inclosed by North point on the n., and Cedar point on the south. A light house on Turtle island between these points lights the entrance to the bay. The channel to the mouth of the Maumee is from 12 to 14 ft. in depth, was formerly very tortuous; but the government appropriations have greatly improved it of late years. Range lights have been placed on both shores to facilitate navigation. The shores are generally marshy, and afford some of the finest places for hunting water fowl in the country. The Toledo sporting association control the marshes of Cedar point for the purpose of duck hunting. On one of the northern bayous of the bay is a sulphur spring of great volume, forming a beautiful basin in the marsh, approached by skiffs only.

MAUMEE RIVER formed by the confluence, at Fort Wayne, Indiana, of the Anglaize and St. Mary's river, and flowing thence 100 m. e.n.e. to its mouth in the Maumee bay at the w. end of lake Erie. For 12 m. above its mouth it is an estuary of the lake; its waters rising and falling as the winds shift from e. to west. Its breadth in this part is from one third of a m. to a m.; its channel from 12 to 30 ft. in depth. Toledo, its commercial mart, is 4 m. from its mouth; and up to this point the channel is usually 14 ft. deep; above Toledo 10 feet. The rapids of the Maumee meet the slack water of the lake 12 m. above the mouth, are 18 m. long, with an average fall of about 4 ft. to the mile. The river from the foot of the rapids to Fort Wayne is from 400 to 100 yards wide; above the rapids its slack water is used as a part of the way for the Wabash and Miami, and Erie canals, and furnishes water for the locks down to their terminus at Toledo. The shores are low near the lake, and increase in height to the foot of the rapids, where they are 60 ft. high. Above Toledo, and below the rapids, the river is studded with low islands which, with its banks, once beautifully wooded, made a valley of great beauty. The scenery along the rapids is also beautiful. The volume of water in the river varies from spring to mid-summer like that of a mountain stream; though throughout its whole course, it flows through a flat alluvial country. In summer the rapids are frequently almost dry; yet the spring freshets are tremendous. The last one in Feb., 1881, in conjunction with fields of unbroken ice below Toledo, and e. winds driving the water of the lake into the open funnel formed by the narrowing width of the lake, bay, and river, caused a greater rise than ever before known; inundating all the river front of the city. The reason for this unequal volume of its water is found in the capacity of the alluvial soil to absorb the summer rain falls more and more as the area of cultivation widens; while in winter the frozen ground prevents such absorption and empties a large part of the precipitation into its bed.

MAUNA KEA, the highest mountain in Polynesia. It occupies the n. and n. central portions of Hawaii, and its height was estimated by the U. S. exploring expedition to be 13,953 feet. It is an extinct volcano. During most of the year snow lies on its peaks, which are composed of gravel and reddish scoria. Its sides are covered with forests, where wild cattle range and are hunted for their horns, hides, and tallow.

MAUNA LOA, a volcanic mountain which occupies much of the central and southern portion of Hawaii. From the sea it appears domelike in shape, of no great elevation, and with very gradual slopes, partly covered with forests and sometimes crowned with snow. The top of the mountain is one expanse of lava, in some parts smooth and solid, in others cellular and scraggy. No ashes, rocks or sand are seen. Its terminal crater, called *Mo Ruaweo-weo*, is near 15,000 ft in length and 8,000 in breadth, the nearly perpendicular walls of its interior being in 1864 1000 ft. deep. In its quiet period the bottom is traversed by ridges from 10 to 50 ft. high, by deep chasms, beds of smooth lava, and fissures through which steam and smoke escape. The crater of Kilauea, the largest known in the world, is on the s.e. side of the mountain. It is $3\frac{1}{2}$ m. long, $2\frac{1}{2}$ wide, 1044 ft. deep. At the depth of 650 ft. a ledge of black, hard lava from 600 to 2,000 ft. in width has accumulated around the sides of the cauldron, within which billows of liquid fire toss and rage. Even when comparatively inactive, red hot lava is occasionally thrown up to the height of 60 or 70 feet. In times of eruption a crater will sometimes fill with melted lava and overflow; or the internal fires will make for themselves new vent by forming fresh craters; or they will form lava fountains, throwing up continuous jets of molten material, and receiving them again in their raging depths. A sunken crater 38 ft. deep by 200 in diameter (called by lieut. Wilkes Judd's lake, from the fact that Dr. Judd, who accompanied him, was overtaken while in the crater by a sudden eruption and narrowly escaped death) discharged in 1841 by estimate 200,000,000 cubic ft. of lava. An eruption in 1855 lasted 13 months, and discharged lava over 300 sq. m. of territory. In Jan. 1859, three new craters opened in the side of the mountain, one of which, 1000 ft. in diameter, threw up a column of white hot fluid lava from 200 to 300 ft. high, continuing to play for four or five days, and illuminating the sea for 150 miles. This crater discharged itself through a subterraneous passage, and a half mile distant came to the surface and leaping a precipice of 50 ft. spread by numerous streams over the slope of the mountain, and reached the sea 40 m. from the crater in five days still at a light red heat. The meeting of the lava and the waves produced a scene terrific beyond imagination. The lava continued to flow from January to November.

MAUNDRELL, HENRY, an English traveler; 1650-1710; b. England; visited Palestine in 1697; was for several years chaplain to the English factory at Aleppo, Syria. He published in 1698, *Journey from Aleppo to Jerusalem*, a valuable work often reprinted, translated into French.

MAUREPAS, JEAN FREDERIC PHELYPEAUX, Comte de, 1701-81; a minister of state in the reigns of Louis XV. and XVI. of France. The office was hereditary in his family, and embraced the affairs of the royal household, the government of Paris, and of the Marine. It fell to Maurepas at the age of 14, but was administered during his minority by the marquis de Vrillière. Maurepas became, in fact, minister of Marine in 1723, and secretary of state in 1738. Neither great, learned, neither eminently good, or bad, he was yet a remarkable minister by virtue of an adroitness of character, and a tact in managing men, and fitting his action to the events which he could not control, that makes his long term of service interesting to the French historian and biographer. When the unfortunate Louis XVI. came to the throne, Maurepas was called from retirement to his councils. Through his influence, largely, the government made the alliance with the United States and declared war with England. He secured the entrance of Turgot and Neckar to the royal ministry, and afterwards when he found them in his way secured their dismissal. A French biographer sums him up as "the most quick-witted, charming, and seductive of ministers." Facetious writings to which Maurepas is said to have contributed, have been published under the title of *d'Etrennes de la St. Jean, d'Etrennes de la St. Martin, et de Recueil de ces messieurs*. Curious memoirs by Solavil, purporting to be of Maurepas, were published in four volumes, 1790-92.

MAURER, GEORGE LUDWIG von, 1790-1872, b. Bavaria; educated at Heidelberg, where he studied jurisprudence, to which he afterwards devoted himself, in Paris. In 1826, after holding some minor offices, he was appointed a professor at Munich. From 1832 to 1834, he had a seat in the council of regency at Athens, where he formed a code. In 1847, having been previously appointed to the council of state, he was minister of foreign affairs and justice. The most valuable, perhaps, of his various works on history and jurisprudence are, *Das Griechische Volk*, 1836; and *Geschichte der Städteverfassung in Deutschland*, 1871.

MAURER, KONRAD, b. Germany, 1823; a son of Georg Ludwig. He was appointed professor of jurisprudence at Heidelberg, in 1847, but has devoted himself specially to the cultivation of the Norse language and literature, and the jurisprudence and history of the Scandinavian peoples. Besides editing some of the Icelandic sagas, he has published *The Origin and Constitution of the Icelandic State*, Munich, 1852; and *The Conversion of the Norwegian race to Christianity*, 2 vols., 1855-56.

MAURICE, Count of Saxony (MARSHAL SAXE). See SAXE, HERMANN MAURICE, ante.

MAURICE, THOMAS, 1753-1824; b. Hertford, Eng. After the death of his father he became a pupil of Dr. Parr, in an academy at Stanmore; entered St. John's college, Oxford, in his 19th year, but the next year removed to University college; produced while

there a metrical version of *Ædipus Tyrannus* and several original poems, and under his tutor, lord Stowell, he cultivated his taste for historical research. After graduating he was ordained, and appointed curate of Woodford in Essex, resigning in 1785 for a pastorate at Epping. In 1791 his *Indian Antiquities* began to appear, and was completed in 1797 in 7 volumes. His *History of Hindustan*, which he had begun to publish in 1795, was finished in 3 volumes in 1799. In 1798 he was appointed by earl Spencer vicar of Worm-leighton in Warwickshire. In 1799 he was appointed assistant librarian in the British museum, and in 1800 received the pension left vacant by the death of the poet Cowper. His *Modern History of India* was published in 1802 and 1804. In 1804 he was presented by the lord chancellor to the vicarage of Cudham in Kent. Among his last works were *Memoirs Comprehending the History of the Progress of Indian Literature*; and *Anecdotes of Literary Characters in Britain* during a period of 30 years.

MAURY, a co. in central Tennessee; pop. '80, 39,945—18,169 colored; 580 sq.m.; it is drained by the Duck river and its branches and intersected by a branch line of the Louisville and Nashville railroad. The soil is highly diversified and the natural and manufactured products very large. In 1870 nearly 1,500,000 bushels of Indian corn were raised and large quantities of wheat, tobacco, butter, hay, and cotton. There are tanneries, flour mills, and several factories connected with the manufacture of cloth. Chief town, Columbia.

MAURY, JEAN SIFFREIN, Cardinal 1746–1817; b. at Valréas, Venaissin; son of a shoemaker; educated for the priesthood at Avignon; went to Paris at the age of 20 as *abbé précepteur*, but devoted himself to preaching, and by his panegyrics on St. Louis in 1772 and on St. Augustine in 1775, he took the highest rank as a pulpit orator. Appointed preacher to the court he obtained the abbey of Frénade and the priory of Lihons, and also a seat in the academy. In 1785 he pronounced an eloquent panegyric on St. Vincent de Paul. In 1789 he was chosen deputy of the clergy to the states-general, where he was prominent in defense of the church and royalty; and with great vigor, skill, and eloquence opposed the revolutionary measures until the flight of Louis XVI. At the dissolution of the constituent assembly he left France in 1791 and at the invitation of Pius VI. took up his residence in Rome where he was received with great honor. In 1794 he was made archbishop of Nicæa *in partibus* nuncio to the diet at Frankfort for the election of emperor Francis II., cardinal and bishop of Montefiascone and Corneto. On the invasion of Italy by the French in 1798 he fled in disguise to Venice, and thence went to St. Petersburg. Returning in 1799 he was appointed by the count of Provence, afterwards Louis XVIII., his ambassador to the holy see. Becoming reconciled to Napoleon he returned to France in 1806. In 1810 he was appointed archbishop of Paris, and when ordered by the pope Pius VII., who was taken captive by Napoleon, to relinquish the administration of his diocese, he disobeyed and was after the restoration imprisoned for a short time at Rome. After this he retired to private life. He published a valuable treatise, entitled *Essai sur l'éloquence de la Chaire* in 2 volumes.

MAUSER GUN, the name of the rifle invented by a gunsmith named Mauser of Kannstadt, Würtemberg, in 1871, and used by the Prussians in the war with France. While embracing the advantages of the Bavarian Werder gun, it is of longer range and more rapidly loaded and discharged than the needle-gun. It is of light weight and very simple in construction. It is now in general use in the army of the German empire.

MAUVAISES TERRES, or BAD LANDS, the name of several different tracts of desolate, treeless, waste and broken land in Dakota, Nebraska, Colorado, and other territories of the United States, but applicable especially to a section along the White river, an affluent of the Missouri. These sections are of the tertiary formation, and abound in relics of extinct species of rhinoceros, hyæna, and other mammals. Some parts of these lands yield a coarse, scanty pasturage after heavy rains, but for the most part they are utterly barren.

MAVERICK, a co in s.w. Texas, bounded on the s. by Mexico; 1200 sq.m.; pop. '80, 2,967; drained by Elm creek and the branches of the Rio Grande which forms its s.w. boundary. The surface is for the most part level and adapted for cattle-breeding which is carried on to some extent. There is very little agricultural production. Chief town, Eagle Pass.

MAVROC-ORDA'TOS. See MAUROCORDATOS, *ante*.

MAX, GABRIEL, a German artist, a resident of Munich. His subjects are idealizations from the poets, spiritual in the highest degree, and in execution simple, noble, and effective. "Gretchen on the mountain side on Walpurgis Night," "The Lion's Bride," "The Christian Martyr"—a young girl left to the tigers in the arena of the Coliseum—are among his great works, which have become widely known through recent engravings and photographs. Max is in the prime of his powers, reserved among strangers, but quite social among intimates. He ranks as one of the most eminent living artists of Germany.

MAXCY, JONATHAN, D.D., 1768–1820; b. Mass.; entered Brown university at the age of 15, and graduated in 1787; was tutor 1787–91, during which time he studied theology, and in 1790 was licensed to preach; installed pastor of the First Baptist church, Providence, 1791, and also was elected a trustee and professor of divinity in Brown uni-

versity. In 1792, at the age of 24, he became its president. In 1802 he was elected president of Union college, N. Y.; and in 1804 resigning, he accepted the presidency of South Carolina college at Columbia, retaining it until his death. He was an eloquent preacher, and learned in philology and moral philosophy. Some of his sermons, including one on *The Existence of God demonstrated from the Works of Creation*, and his *Literary Remains, with a Memoir*, were published, edited by Romeo Elton, D.D.

MAXENTIUS. See **CONSTANTINE I.**, the Great, *ante*.

MAXFIELD, THOMAS, 1720-85; b. England; converted to the faith of John Wesley by the preaching of the great Methodist divine at Bristol; was his substitute in the Foundry church, London, in prayer and expounding the Scriptures, but was not permitted to preach. Nevertheless, led by his evident popularity he attempted to preach, and succeeded so well that Wesley, who was strongly in favor of the strict discipline of the church, listened to the counsel of his mother to hear him before denouncing him, and then granted him leave to preach. He was the first itinerant lay-preacher in the Methodist denomination. In 1744 he attended the first conference at the Foundry church, having been ordained in Ireland by the bishop of Londonderry, who was friendly to Wesley. He was introduced by Wesley into London society, where he contracted a marriage with a lady in a position far superior to his own. In 1746 he attended the third conference at Bristol, and was persecuted in company with other followers of Wesley, being at one time kidnaped and pressed into the king's service. In 1764 he became estranged from Wesley on account of some disagreement in church matters, and associated himself with Bell, an ex-life-guardsmen turned local preacher, who, possessing great personal magnetism and wild enthusiasm, had a powerful influence over him. He joined Bell in advocating doctrines so strongly opposed to the reasonable interpretation of the Scriptures, that a decided breach was made between his followers and Wesley, and he withdrew from the Foundry church and founded a society of 170 members who had seceded with him. He continued with this people for 20 years, and when helpless from a stroke of paralysis, Wesley remembered and visited him, and afterward preached to his people in the chapel which he had occupied.

MAXIMIANUS I. See **DIOCLETIAN**, *ante*.

MAXIMIANUS II. See **GALERIUS**, *ante*.

MAXIMIN, CAIUS JULIUS VERUS MAXIMINUS, a Roman emperor; b. in the latter part of the 2nd century. He was originally a Thracian shepherd. Attracting the attention of the emperor Septimius Severus by his immense size and wonderful feats of strength and agility, he was admitted to the army; was rapidly advanced for his bravery, put in command of a new legion raised in Pannonia, and obtained great influence over the soldiers. At the head of this legion he followed Alexander in his campaign against the Germans. When the army was encamped on the banks of the Rhine, he conspired against Alexander, and caused him to be put to death in his tent, with his mother Mammaea, A.D. 235. Being proclaimed emperor, he named his son Maximus Cæsar, and made him colleague in the empire. He continued the war against the Germans, and devastated a large part of the country beyond the Rhine. But his cruelty and rapacity aroused the indignation of the people. For alleged conspiracy against him he put to death Magnus, a senator, with 4,000 other persons, and for the imperial treasury confiscated the municipal property. He also opposed Christianity, and persecuted the bishops who had been favored by Alexander. The provinces of Africa revolted and proclaimed Gordianus, who was soon after acknowledged by the senate and people. Rome, fearing the vengeance of Maximin, the senate proclaimed emperors Clodius Papienus Maximus and Decimus Cælius Balbinus, and with them was associated by order of the people a nephew of the younger Gordianus. Maximin having crossed the Isonzo, laid siege to Aquileia in Italy, but met with strong resistance from the garrison and people. The soldiers mutinied and killed both him and his son in 238. Maximin was a fierce soldier, and his son a handsome but arrogant youth.

MAXIMS, LEGAL, a term used by members of the legal profession and writers on jurisprudence to denote those brief and pithy utterances, which by general consent have been accepted as embodying in proverbial form the accumulated wisdom of the past, the well-determined general principles which are the foundation of both law and equity. As these general principles are founded on the natural law of justice, safety, and public policy, they are not liable to change by statute or local enactment; and however the legislative power may see fit to apply them in particular instances, the basis of the law is the same in all countries. Hence it follows that the utterances of ancient Roman magistrates and authors of legal treatises remain to this day of as much force and truth as when first promulgated. As the code of Justinian forms the basis of the civil law, still in force over most countries of Europe, and as the works of all the earlier writers of our English common law were couched in the Latin language, it is not surprising that by far the largest number of these maxims are in Latin, which tongue, moreover, is adapted to give such maxims their needful condensation and precision. In very few instances can the maxims be traced to their original sources; many are derived from the Roman law; many are from continental jurists of the middle ages; while a very large number were enunciated by early English judges and writers, and still others are of quite modern

origin. The form in which they are expressed is often varied and in many cases an abbreviated form is employed by most lawyers in place of the full utterance. Like other expressions of the common law, the maxims derive their force and authority in the first place through the truth and justice of the principles which they enunciate, and, secondly, through the universality of their acceptance and application by courts in the past. They are not, therefore, of absolutely equal and binding authority, or rather it is impossible to draw a line strictly dividing accepted maxims from mere expressions of opinion. While it has been said that maxims resembled both mathematical axioms and proverbs, it is true that they differ from both materially in their nature, being more the outcome of inductive reasoning than are axioms, and more carefully framed and specifically applicable than proverbs. The number of those universally accepted as law is very large indeed. Works devoted entirely to the consideration of the meaning and application of this form of law have been published by several authors. Perhaps it would be safe to put the number of those maxims which are properly so-called, not mere *dicta*, and which are in common use, as not less than two hundred. If the definition be made broader in both respects, we must add to this many hundreds. Bouvier in his *Law Dictionary* gives a very complete list, which cannot fall far short of two thousand distinct maxims. The reader will most easily understand the nature and style of this class of pithy legal sayings by examining a few which are selected from the great mass, mainly with regard to their brevity and frequent use. Such are: *caveat emptor*—let the buyer be on his guard—a most important principle of the law of contracts, but not to be construed too strictly; *Qui facit per alium, facit per se*—he who acts by another, acts himself—in which may be seen the main principle of the law of agency; *Æquitas sequitur legem*—equity follows the law; *Ex nihilo nihil fit*—from nothing comes nothing; *Fraus est celare fraudem*—to conceal a fraud is itself a fraud; *A l'impossible nul n'est tenu*—no one is bound to do what is impossible, the language being what is called "law French"; *Ubi jus, ibi remedium*—where there is a right there is a remedy; *Ignorantia legis neminem excusat*—ignorance of the law excuses no one; also expressed by *Ignorantia facti excusat, ignorantia legis non excusat*—ignorance of fact, but not of law is an excuse; *Prior tempore, potior jure*—first in time, first in right; *Id certum est, quod certum reddi potest*—that is certain which may be rendered so. Among those commonly given in English may be mentioned: Acts indicate the intention; When the equities are equal the law shall prevail; When the foundations fail, all fails; Once a fraud, always a fraud.

As may be readily perceived, the difficulty in practically employing these and the many similar maxims, is twofold; first, in correctly amplifying and expounding the extended meaning sought to be conveyed in the condensed form; and, secondly, in properly applying it to the adjudication of the particular facts of the case in question; and it is the work more especially of the writer of treatises on the various branches of law and equity to perform the first duty; while to the active practitioners and to the judges emergencies are constantly presented, calling for the exercise of the latter function.

MAXWELL, HUGH, 1787-1873; b. Scotland, and brought to the United States in childhood; graduated at Columbia college in 1801, and entered the profession of the law in New York, where he became prominent as a learned and skillful advocate. He was assistant judge-advocate general of the U.S. army in 1814, and district attorney for New York county in 1819, and again in 1822-29. He took a distinguished part in the "conspiracy trials" of 1823, and was collector of the port of New York 1849-53. He was a prominent whig politician.

MAXWELL, WILLIAM, 1735-98; b. probably in Ireland; entered the army in America in 1758, and took part in the French war and the war of the revolution; was col. of a New Jersey battalion in the Canadian campaign of 1776; commanded the New Jersey brigade in the battles of Brandywine and Germantown; was engaged in the pursuit of Clinton in New Jersey, and took a prominent part in the battle of Monmouth; was engaged in Sullivan's expedition against the Indians in 1779, and in the battle of Springfield in 1780, shortly after which he resigned. He enjoyed the esteem and confidence of Washington.

MAXWELL, WILLIAM HAMILTON, 1794-1850; b. in Ireland; and when 19 years of age graduated at Trinity college, Dublin. After traveling some years he took orders in the English church, and was in 1820 made rector of Ballagh, county Connaught. As there was not at that time a single Protestant in the parish, Maxwell found leisure to engage in literary pursuits. He wrote in all about 20 volumes, most of which were stories of military life; among them may be mentioned. *O'Hara, Stories of Waterloo, The Dark Lady of Donna, The Bivouac and Rambling Recollections of a Soldier of Fortune*. He wrote also a life of the duke of Wellington, and contributed many papers in the *Dublin University Magazine* and *Bentley's Miscellany*. "Christopher North" spoke of Maxwell in the *Notes* as a true sportsman, and successful in "many picturesque descriptions of the wildest scenery in Connaught, many amusing and interesting tales and legends, and much good painting of Irish character."

MAXWELL, SIR WILLIAM STIRLING, LL.D., b. near Glasgow, Scotland, in 1818; bore the name of Stirling until 1866, when by the death of sir John Maxwell, his maternal uncle, he succeeded to a baronetcy and assumed the name of Maxwell. He gradu-

ated at Cambridge in 1839, after which he visited Spain and France, devoting several years to studies of the history, literature, and art of Spain at the close of the mediæval period. Among his works are *Annals of the Artists of Spain*; *Cloister Life of Charles V.*, and *Velasquez and his Works*. He was elected to parliament for Perthshire in 1852, and represented that borough most of the time for a period of more than 20 years. He was rector of the university of St. Andrews in 1863, and of that of Edinburgh in 1872, and in 1875 was elected chancellor of the university of Glasgow.

MAY, CAROLINE, b. England, 1820; daughter of the rev. Edward H. May, formerly pastor of the Dutch Reformed church in New York city. She published a volume of original *Poems* in 1864, and *Hymns on the Collects* in 1872. More important than her original work is the anthology which she published in 1848, under the title of *The American Female Poets*; to which are appended her own biographical and critical remarks. The work is written on much the same plan since followed by prof. J. S. Hart, and employed by Griswold in his compilation of a similar nature. Most of the names it contains have grown obscure, but the collection is still of some value to students of American literature.

MAY, SAMUEL JOSEPH, 1797-1871; b. Boston; graduated at Harvard in 1817; studied for the ministry with Henry Colman at Hingham, and with Henry Ware, Andrews Norton, and prof. Frisbie, at Cambridge; was ordained in the Chauncy Place church in Boston in 1822, and shortly afterwards settled as pastor of the Unitarian church in Brooklyn, Conn. When, in 1830, William Lloyd Garrison came to Boston to agitate the slavery question, Mr. May was there, and prominent among those who seconded his efforts. He joined the first society to promote the cause of immediate emancipation, and lived to witness the utter overthrow of slavery. When Prudence Crandall, a Quaker, was persecuted for opening her school for young ladies at Canterbury, Conn., to pupils of African lineage, he became her friend and adviser, and stood up bravely between her and her persecutors; and though he did not save the school from being finally broken up by violence, he did succeed in baffling the attempts to accomplish that result under the forms of law, and in arousing in that part of Connecticut a public sentiment against slavery that has never been overcome, and that for many years has determined the political status of the state itself. The late Arthur Tappan, of New York, furnished him with the funds necessary to prosecute a vigorous campaign for the defense of Prudence Crandall, and to establish a press for the enlightenment of the people. In 1834 Mr. May resigned his pastorate in Brooklyn to accept the position of general agent of the Massachusetts antislavery society. He was a public lecturer against slavery in the years 1835-36, when mobs were epidemic, and his life was often in great peril. His gentleness was as conspicuous as his courage, and he was never once betrayed into any harshness of spirit or language. Oct. 26, 1836, he was settled as pastor of the Unitarian church in South Scituate, Mass., where he remained until 1842, when, at the earnest solicitation of the late Horace Mann, then secretary of the state board of education, he took charge for three years of the normal school at Lexington. In 1845 he removed to Syracuse, N. Y., to become pastor of a Unitarian society, and there remained until his death. In that city he identified himself with the cause of education and with every institution of public charity, and was greatly beloved by the whole people. His house in Syracuse was a constant refuge for fugitive slaves, and he took an active part in the famous rescue of the slave "Jerry" from his legal captors at Syracuse in 1851. For this offense against the fugitive slave law he and 17 others were indicted in the U. S. district court at Auburn. A hundred of the best known citizens of Syracuse accompanied the prisoners to Auburn, and when they were required to give bail for their appearance for trial, William H. Seward was the first to affix his name to the bond, and he also invited the rescuers and their friends to his own house for refreshments. Mr. May and two other gentlemen united in a public declaration that they had "assisted all they could in the rescue of Jerry," that they were ready for trial, and would give the court no trouble as to the fact, but would rest their defense upon "the unconstitutionality and extreme wickedness of the fugitive slave law;" but the district attorney never brought them to trial. Mr. May, during the war, was constantly engaged in labors for the health and comfort of union soldiers, and when the struggle was ended he took an active part in associations for the relief of the freedmen. Many of his sermons and addresses were published, and a volume of his *Recollections of the Antislavery Conflict* appeared before his death. His *Memoir* by Thomas J. Mumford was published in 1873.

MAY, THOMAS, an English historian and poet, 1595-1650; b. Sussex, Eng., of an ancient family; educated at Cambridge; repaired to London, became a member of Gray's Inn, and was admitted to the bar. He published the tragedies of *Antigone* and *Agrippina*, a comedy entitled *The Heir*, and other works. Some of his poems were published by special command of Charles I., with whom he was a favorite. Abandoning the court he became a republican. He was secretary to Cromwell during the civil war, and employed to write its history. This was published originally in Latin, and translated into English in 1650. He published two poems on the reigns of Henry II. and Edward III. He translated into English verse *Selected Epigrams of Martial*, Virgil's *Georgics* and Lucan's *Pharsalia*, to the last of which he wrote a continuation in English and Latin. His *History of the English Parliament*, begun Nov., 1640, was edited by Baron Masères.

and translated into French by Guizot. He was buried in Westminster abbey, but soon after the restoration his body was disinterred and thrown into a pit in the adjoining St. Margaret's churchyard. A monument which had been erected over his grave was demolished.

MAY, Sir THOMAS ERSKINE, b. England, 1815; educated at Bedford school, became assistant librarian of the house of commons in 1831, and entered the bar in 1838. In 1844 he published a treatise on the *Law, Privileges, Proceedings, and Usages of Parliament*, which has become a standard authority on parliamentary law. In 1846 he was made examiner of petitions for private bills, and the next year he was appointed taxing-master to the house of commons, of which he became clerk in 1871. In 1849, he published in pamphlet *Remarks and Suggestions with a View to Facilitate the Dispatch of Public Business in Parliament*; in 1850, another pamphlet, *On the Consolidation of the Election Laws*, and in 1861-63, *The Constitutional History of England since the Accession of George III., 1760-1860*. This work is supplementary to Hallam's, and brings the constitutional history of England down to the present generation. It is a sound and trustworthy book, without special brilliancy. Sir Thomas published, in 1877, *Democracy in Europe—a History*; and he has contributed to the *Edinburgh Review* and the *Law Magazine*.

MAY'AS, a race of Indians found in the countries of Yucatan, Guatemala, and Tobasco, presenting a subject of interest as to their origin and habits, and their position as regards civilization. They differ decidedly, and in many respects, from other native races of that region. By some they are regarded as of wholly distinct origin; but by most ethnologists it is thought that they are descended from the ancient Toltecs, the builders of the extensive and grand structures whose ruins may be seen at Uxmal, Copan, Itza, and other sites in the neighborhood. The traditions of the Mayas indicate that they have occupied the country for from 600 to 800 years, and it is not improbable that the Toltecs may have merged with tribes immigrating from Cuba or the Antilles. The comparatively high degree of civilization is, doubtless, derived through the Toltec descent. Mayapan, the northern part of Yucatan, was in ancient times their chief home; and in that locality are the ruins of many noble cities. In their early history, though possessed of skill in architecture, with some knowledge of navigation and commerce, and though using an alphabet and written language, the Mayas were semi-barbarous in many respects, such as painting and tattooing the body and compressing the heads of their infants. After the Spanish invasion the Mayas were gained over to Christianity, after the usual fashion of the invaders, by fire and sword. Many of their savage customs were laid aside; but in 1848 occurred a most extensive uprising of the natives in many parts of Mexico, and the race regained its independence. Little communication has been held with them since, but it is said that they are once more lapsing into their old religion, which, like all those of Mexican origin, was founded on the basis of human sacrifice, and was blood-stained and revolting in the extreme. The ancient language and the alphabet of the Mayas have long been a subject of discussion by grammarians and students of comparative philology. The alphabet proper contains 29 characters, two or three forms being used for some of the English letters, while *d*, *f*, *g*, *q*, *r* and *v* are wanting; *s* and *z* are denoted by the same hieroglyphic, as are also *i* and *j*. There are in use, additionally, a set of marks indicating syllabic sounds. The manuscripts in existence are written upon bark, and the lines read from right to left. A number of grammars and dictionaries of the language exist, mostly in Spanish and French. The latest is that of Dr. Behrend (1875).

MAY-APPLE. See *PODOPHYLLUM*, *ante*.

MAY BUG. See *COCKCHAFER*, *ante*.

MAYER, ALFRED MARSHALL, b. Baltimore, 1836; educated at St. Mary's college. In 1856 he was appointed professor of physics in the university of Maryland; and he has since held a similar position in the Westminster college in Missouri; in Pennsylvania college; in Lehigh university, and in the Stevens institute of technology, Hoboken, N. J., where he remains. He was for a time one of the editors of the *American Journal of Science and Arts*, and has published a number of contributions to science, of which may be noted: *Estimation of the Weights of very Small Portions of Matter*, 1858; *Researches in Electro-Magnetism*, 1873; and *Researches in Acoustics*, 1874. Since his connection with the Stevens institute, he has made a specialty of acoustics, in which he has made many interesting experiments, and some valuable discoveries. He has established the connection between the pitch and duration of a sound, has invented a method of determining the comparative intensity of sounds with the same pitch, and has located the organs of hearing in the mosquito. He has also developed new processes for analyzing sound, and has made researches into the nature of electricity.

MAYER, BRANTZ, 1809-79, b. Baltimore; educated at St. Mary's college, and after graduation, made a tour to the East. He returned to America in 1828, and was called to the bar, but gave up the practice of his profession in 1841, to become secretary of the American legation at Mexico. He came back in 1842 and for a time edited the *Baltimore American*. In 1867 he became a paymaster in the army. In 1844 he published the results of his observations in Mexico, under the name of *Mexico as it was and is*, describ-

ing the political and social state of Mexico at that time, with some account of the ancient Mexican civilization. To the latter branch of this subject, he returned in his *Mexico: Aztec, Spanish, and Republican*. This work, which appeared in 2 vols. in 1851, is of considerable value for the study of Mexican history after the Spanish conquest. In 1854 his *Captain Canot* came out, devoted to the exposure of the slave trade, and from its subject became highly popular. The Smithsonian institution published in 1856, his *Observations on Mexican History and Archaeology*. He was one of the founders of the Maryland historical society.

MAYER, JOHANN TOBIAS, 1723-62, b. Würtemberg; son of a civil engineer, whose death left him dependent on his own exertions. He taught mathematics for a living, and devoted himself to the study of gunnery. In 1746 he assisted in founding the cosmographical society of Nuremberg, to whose *Transactions* he contributed a number of papers, among them an important paper on *The Libration of the Moon*, in which he made the first use of the equations of condition, which have since been so generally applied. In 1751 he was appointed director of the observatory of Göttingen, where for the remainder of his life, he did much to advance the sciences of astronomy and navigation. His first published work was *A Treatise on Curves for the Construction of Geometrical Problems*, which was followed the same year, 1745, by *A Mathematical Atlas*. At Göttingen, he gave much labor to a *Zodiacal Catalogue*, which contains 998 stars. His *Lunar Tables* were published in 1755, and were so correct as to be adopted by the British board of admiralty. In the same year he discovered the repeating circle, which was afterward used with so much success by Borda, in measuring the arc of the meridian. He left a large number of scientific memoirs.

MAYER, JULIUS ROBERT, Dr., a German physicist, b. in Heilbröun, Würtemberg, 1814. He attended the gymnasium at Heilbröun, studied medicine at Tübingen, and finished his course at Munich and Paris. He made a voyage to Java in 1840, and while there he made observations on the blood which led him to the investigation of the subject of animal heat, and finally to that of the conservation and correlation of forces. After his return to Heilbröun he became town physician, which interrupted his investigations, but he published a preliminary notice of the work he had accomplished up to 1842, in Liebig's *Annalen der Chemie und Pharmacie* under the title *Bemerkungen über die Kräfte der unbelebten Natur*. In 1845, he made a fuller explanation of the subject in a memoir, under the title, *Die organische Bewegung in ihrem Zusammenhange mit dem Stoffwechsel*. In 1848 he published *Beiträge zur Dynamie des Himmels*, and in 1851 the essay for which he is perhaps more generally known in popular science, that upon the mechanical equivalent of heat, in which he developed and expanded the principles laid down in his former papers. His argument is that the sun's power is the source of all energy on the earth, nature storing up the light and heat, and molding it into permanent forms, from which other kinds of energy may be derived. In this way various potential conditions are formed, plants storing up power to be afterward transferred to animals and diffused in motion or work; or the plants in the form of wood and coal may liberate their forces by combustion. He determined the numerical relation between heat and work, and followed up his investigation by considering the vast amount of heat generated by gravity when the force continues its action through sufficient space; concluding that the gravitating force between the sun and the earth possessed a heat equivalent to a mass of 6,000 times the weight of the earth, and that the light and heat of the sun are maintained by the constant impact of meteoric matter. In 1848 Dr. Mayer incurred the displeasure of many of his former friends by taking sides against the revolutionists, and the attacks made upon his scientific investigations so affected him as to throw him into a sleepless condition which resulted in delirium, during which he leaped from a window 30 ft. high, sustaining severe injuries, from which, however, after a long time he recovered. His works have been published under the title *Die Mechanik der Wärme*, (Stuttgart, 1867). The Copley medal was awarded to him by the royal society of London in 1871.

MAYER, KARL, 1799-1862, b. Germany; a voluminous composer for the piano. He went to Russia with his father, who was a member of a regimental band, in 1812. While at Moscow he was a pupil of the pianist John Field. After a residence in Paris and Brussels, and a tour through Germany, he went back to Russia, where he won a high reputation as a teacher of the piano. He gave lessons at St. Petersburg and Moscow, but finally made his home in Dresden, where he died. He left 351 compositions for the piano, of which the more pretentious are concertos for the piano and orchestra.

MAYHEM. See BEATING AND WOUNDING, *ante*.

MAYHEW, EXPERIENCE, 1673-1758, b. Martha's Vineyard. He was the oldest son of Rev. John Mayhew, and great-grandson of Gov. Thomas Mayhew. He began to preach to the Indians at the age of twenty-one, in 1694, and had the oversight of five or six Indian assemblies, which he continued for 64 years. Though not favored with a learned education, he became so conspicuous that Dr. Cotton Mather in a sermon printed at Boston in 1698, and reprinted in his *Magnalia*, London, speaking of more than "thirty hundred Christian Indians," and "thirty Indian assemblies," adds: "A hopeful and worthy young man, Mr. Experience Mayhew, must now have the justice done him of

this character, that in the evangelical service among the Indians there is no man that exceeds this Mr. Mayhew, if there be any that equals him." Having thoroughly mastered the Indian language, which he had learned in infancy, he was employed by the commissioners to make a new version of the Psalms and the gospel of John, which he did in 1709 in collateral columns of English and Indian. He was offered the degree of master of arts at Cambridge, which, though he declined, was conferred upon him at the public commencement, July 3, 1723. He published in 1727 *Indian Converts*, comprising the lives of 30 Indian preachers and 80 other converts, besides a volume entitled *Grace Defended*.

MAYHEW, HENRY, 1812-76, b. London; son of a solicitor in good practice. Was sent to Westminster school, but twice ran away, and made a voyage to Calcutta on a ship-of-war. On his return to London he passed three years in his father's law office as an articulated clerk, traveled for a period in Wales, and finally adopted the literary profession and settled in London. His first venture was theatrical. In company with Mr. Gilbert à Beckett he took the Queen's theater, where he produced the clever farce of *The Wandering Minstrel*. About the same time he started a comic paper called *Figaro in London*, which was the precursor of *Punch*, of which Mr. Mayhew was also one of the founders. Between the years 1846-51, in conjunction with his brothers, Horace and Augustus, he brought out a number of fairy tales and farces, and a series of humorous sketches, including *The Greatest Plague of Life; Whom to Marry, and How to Get Married; The Image of his Father*; etc. He also published individually *Young Benjamin Franklin; Boyhood of Martin Luther; The Wonders of Science*; and other books for children. In 1851 he produced his most important work, *London Labor and the London Poor, a Cyclopædia of the Condition and Earnings of those that will Work, those that cannot Work, and those that will not Work*. Of this book Mr. Henry T. Tuckerman wrote as follows: "Mayhew has given us the diagnosis of London street life with an analytical precision quite scientific. . . . A body of the most curious information is brought together, which reveals a world of facts appalling to the sensibilities, and wonderfully suggestive to the political economist." Mr. Mayhew also commenced the publication in numbers of a similar work entitled *The Great World of London*, which was not completed. The first of these works was begun in the *London Morning Chronicle*; it was published in 3 vols., 1861, and reprinted 1868. The versatility of Mr. Mayhew's talent is shown by the widely differing nature of his various works. The *London Athenæum* said of him: "We have long been in want of a 'young people's author,' and we seem to have the right man in the right place in the person of Mr. Mayhew." Another London journal, referring to one of his biographical stories for boys, said that it was "told with the grace and feeling of Goldsmith, and by one who has that knowledge of science which Goldsmith lacked."

MAYHEW, IRA, b. New York, 1814; received an education and went west in early youth, and settling in Michigan became a successful teacher. He was for some years superintendent of schools for the state of Michigan. In 1849 the legislature of Michigan passed a resolve in favor of the publication of a *Treatise on Popular Education* for the use of parents and teachers, which was written by him, considered satisfactory, and is now the sixth volume of A. S. Barnes & Co.'s school-teachers' library, New York. He has published *Practical System of Book-keeping*, and *Universal Book-keeping*. His work is characterized as an efficient help to the cause of popular education which has received merited recognition.

MAYHEW, JONATHAN, 1720-66, b. Martha's Vineyard, Mass.; graduated at Harvard college in 1744; ordained minister of the West church, Boston, in 1747, which place he occupied until his death. He took a decided stand against the introduction of bishops into the colonies by the Gospel propagation society, which led to a controversy with Dr. Apthorp and the bishop of Canterbury. He took sides, too, with the opponents of the arbitrary policy of England toward the colonies, boldly expressing his views even in the pulpit. His published works are a volume of seven sermons: *Christian Sobriety, in Eight Sermons to Young Men; Observations on the Charter and Conduct of the Society for Propagating the Gospel in Foreign Parts*. A memoir of him was published by Alden Bradford.

MAYHEW, THOMAS, 1592-1682, b. England; was a merchant in Southampton; emigrated to America in 1631, and settled in Watertown in 1636, obtained in 1641 from the agent of lord Sterling a grant of Martha's Vineyard and the neighboring islands, about 50 m. from Plymouth rock. In 1642 he became both patentee and governor of Martha's Vineyard and other islands. His son having been called to labor in the ministry at Edgartown, governor Mayhew encouraged his work, both by his advice and by inducing the Indian sachems to govern their people according to English laws. They "loved and admired him as the most superior person they had ever seen." They drew up a writing in their own language, signed by men "of the greatest note and power," declaring that as they had freely submitted to the crown of England, so they resolved to assist the English on the islands against their enemies. For 40 years while he lived among them the English and Indians were at peace. While governor he also preached, walking sometimes, even in his old age, 20 m. through the woods. When above fourscore years of age they urged him to accept the pastoral charge of them, which, however,

he declined on account of his position as governor. He continued to preach to extreme old age.

MAYHEW, THOMAS, 1621-57; the only son of governor Thomas Mayhew; b. England; received a liberal education; removed with his father to Martha's Vineyard in 1642; was called by the settlers on the new plantation to the ministry among them. Soon learned the Indian language, and began to preach among them. In 1651 there were 199 men, women, and children who professed to be worshipers of the true God. Desiring to give a more detailed account of the Indians than he could by letter, and to secure aid in his work, he embarked in 1657 for England with his brother-in-law and an Indian preacher, but nothing was ever again heard of the ship. He was an earnest and successful minister, greatly beloved and esteemed by the Indians.

MAYHEW, THOMAS, b. London, 1810; brother of Henry and Horace; entered the profession of literature, and particularly distinguished himself by becoming a pioneer in the production of cheap reading matter for the poorer classes. He published a number of works sold for a penny; including dictionaries and grammars, and founded the penny national library.

MAYNADIER, WILLIAM, 1806-71; b. Md., a graduate of West Point military academy; in 1827 was appointed brevet 2d. lieut. of artillery. He was at one time adjutant of the artillery school of practice at fort Monroe, having been previously assigned to duty there. In 1832 he was one of gen. Winfield Scott's aids in the Black Hawk war in Illinois, and in 1835-38 served in the same capacity with gen. Macomb in the Seminole war, a contest between the Indians and settlers in Florida. In 1838 he was appointed capt. and acting inspector of ordnance, and placed on duty at the U. S. arsenal in Pikesville, Md. In 1842 he was promoted to assistant chief of ordnance, holding the position for several successive years, and was gradually advanced from maj. in 1861, to brevet brig. gen. in 1865. He was remarkable for fine abilities rendered useful by a varied experience, for sound judgment and careful discrimination.

MAYNARD, HORACE, b. Mass, 1814; educated at Amherst college. Removed to Tennessee, and held the position of tutor, and afterwards that of professor of mathematics in the East Tennessee university. In 1844 he was admitted to the bar, and entered upon a law practice which became lucrative and important. He was a member of congress from 1857 to 1863, and during the rebellion suffered from serious losses of property. He was again elected to congress in 1866, and continued to represent the Knoxville, Tenn., district until 1873, and afterwards for two years was representative at large. He was appointed minister to Constantinople in 1875 and continued there until 1880, being appointed postmaster-general in August of the latter year.

MAYNARD, Sir JOHN, 1602-90; b. at Tavistock, England; educated at Exeter college, Oxford. After the regular course of study in the Middle Temple he was called to the bar, having been made a member of parliament in the previous year, 1625. He was subsequently made a sergeant-at-law and king's sergeant, but declined the place on the bench offered him by Charles II. in 1660. In a long political career, extending over 65 years, sir John was a witness of and prominent actor in the most eventful crises of English history. An urgent advocate of increasing the power of the people, he never concurred in the extreme views taken by the radical republicans; an earnest Presbyterian, he stood aloof from the absurd fanaticism of many in his party. He was active in the prosecution of Strafford and Laud, but strongly opposed the arbitrary power assumed by the army, and Cromwell's evident intention of making himself king in fact, if not in name; and for the position he took in this respect was twice imprisoned by order of the protector in the tower of London. At the restoration the honor of knighthood was conferred upon him by Charles II.; and his political course under that monarch was judicious and conservative. In the time of the revolution and the accession of William and Mary, he showed great ability, and notably in the great conference held between the house of lords and the commons in regard to the abdication of James II., a measure which he strenuously advocated. In the same year, 1689, he was made a commissioner of the great seal. Macaulay relates that when, at an interview with William III., the king remarked to Maynard that he must have outlived all the lawyers of his time, sir John both wittily and truthfully replied, "Yes; and if your highness had not come to our assistance, I should have outlived the law, also." Both as a statesman and as a lawyer and expounder of the true principles of the British constitution, Maynard occupied a very high position among the many remarkable men of his age. A number of his political speeches and legal decisions have been collected and published.

MAYO, AMORY DWIGHT, b. in Warwick, Franklin co., Mass., Jan. 31, 1823; educated at Amherst college; studied theology with the rev. Hosea Ballou, formerly president of Tufts college; from 1846 to 1854 was pastor of a Universalist church in Gloucester, Mass.; from 1854 to 1856 preached in Cleveland, O.; from 1856 to 1863 in Albany, N. Y.; and from 1863 to 1872 in the church of the Redeemer (Unitarian), in Cincinnati, O.; and from 1872 to 1880 was pastor of the Unitarian church in Springfield, Mass. During his whole public life he has been an earnest advocate of popular education, and has written much upon the subject. He has opposed with zeal the effort to secularize the public schools, contending for the use in them of the Bible as a means of moral

instruction. He has also taken a decided stand in favor of the so-called "Christian amendment" to the constitution of the United States. For several years he was professor of ecclesiastical polity in the Meadville (Penn.) theological school, visiting the institution yearly to deliver the necessary lectures. He is at present the editor of the *Massachusetts Journal of Education*, and engaged besides in general labors throughout the country to stimulate popular interest in the school-system. His published works are *The Balance*; *Memoirs of Mrs. S. C. E. Mayo*, his first wife; *Graces and Powers of the Christian Life*; and *Symbols of the Capital*, a volume of sermons on the elements of Christian civilization.

MAYO, RICHARD SOUTHWELL BOURKE, Earl of, 1822-72; b. Dublin, Ireland; educated at Trinity college in that city. He was the sixth earl of Mayo, and, until his succession to the title at his father's death in 1867, was known as lord Naas. After graduation he traveled in Russia, and published an account of the trip in *St. Petersburg and Moscow* (1845). His career in politics was most successful; he was twice returned to parliament, and was made chief secretary for Ireland in 1852 by lord Derby, and again in 1858, and 1866, when that statesman was in power, was reappointed to the same position; and under Disraeli's administration was in 1868 made viceroy of India. Here he at once introduced extensive reforms in the conduct of the public service. To this matter he gave his most earnest attention, and it was while engaged in an examination of the penal settlement at fort Blair among the Andaman islands that he met his death at the hands of one of the convicts. It is generally believed that the act was prompted only by natural malignity, and was not occasioned by any political cause.

MAYO, WILLIAM STARBUCK; b. at Ogdensburg, N. Y., 1812; educated as a physician, and took his degree at the New York college of physicians and surgeons in 1833. Dr. Mayo is chiefly known as a traveler and writer of fiction. He spent some time in Spain and in Morocco and other parts of North Africa; and the experience and information gained in these travels was employed with effect in his earlier novels. In fiction he has written *Kaloolah* (1849); *The Berber, or Mountaineers of the Atlas* (1850); *Romance Dust from the Historic Placer* (1857); and *Never Again* (1873). Of these, the first was the most popular, and obtained a very large circulation. His books abound in incidents of adventure and perils, and show versatility, but his character portrayal is, with one or two exceptions, inferior to his narrative. His style does not avoid extravagance; and sometimes, as in his last book, is somewhat morbid. His work, however, is interesting, and has not failed of readers.

MAYOR, *ante*, the ordinary name for the chief executive officer of an incorporated city. No general definition of his powers can be given. They are defined by the charter of the particular city where he holds office, and, as in the case of New York city, are subject to almost annual changes by the legislature. In some cities the mayor actually has great authority; in others, his powers are divided among executive boards or commissions, or he is made dependent for confirmation of his acts or appointments upon the consent of aldermen, or the common council, or other elective or appointive bodies, so that the mayor's actual powers are often extremely limited.

MAYOR, JOHN EYTON BICKERSTETH; b. Ceylon, 1825; educated at Shrewsbury school, and St. John's college, Cambridge, of which he became fellow in 1849. He was assistant master of Marlborough college from 1849 to 1853, took orders in the church in 1855, and in 1863 became librarian of the university of Cambridge, where, since 1872, he has been professor of Latin. His services to the study of classical literature and philology have been eminent, and the number of his works, and particularly of his editions of classical authors, is large. He published an edition of the satires of Juvenal in 1853, and a new edition of the same work appeared in 1878. He has edited the works of Quintilian, the *Speculum Historiale* of Richard of Cirencester, the *Second Philippic* of Cicero, and a portion of Homer's *Odyssey*. He has also published a number of school text-books, and *A Bibliographical Clue to Latin Literature*. He has been an associate editor of the *Journal of Classical and Sacred Philology*, and of the *Journal of Philology*.

MAYORGA, MARTIN DE, a Viceroy of Mexico. When he arrived in the country the small-pox was raging with great violence, and in a few days 8,000 persons died. He ordered a general inoculation of the people. He was a man of energy, and much interested in the welfare of the people, but his wise and useful measures were greatly hindered and opposed. He founded an academy of arts in Mexico. During his administration gold and silver to the amount of nearly \$75,000,000 were coined. He died from poison on his way to Spain. He was the 47th viceroy of Mexico.

MAYOR OF THE PALACE, originally the title of the royal steward under the Merovingian kings. His proper function was the administration of the royal estates, and the care of the royal household; but by 650 the entire administration of the government had passed into the hands of the mayors of the palace. Grimoald of Austrasia, and Ebroin of Burgundy, exercised an absolute authority in their office as mayors. The most famous of the mayors of the palace, Pepin of Héristal, who held the office 688-714, and his son, Charles Martel, who died in 741, were kings in everything but name; and Charles Martel's son, Pepin the short, took the title of king. Thenceforward the office lost much of its importance.

MAYOW or **MAYO**, JOHN, LL.D., 1645-79; b. Cornwall, England; educated at the university of Oxford, and studied both law and medicine, but his taste was for philosophical and chemical investigation; and, though he acquired some celebrity in his profession, both in his practice at Bath and as a medical writer, he is chiefly remarkable for his discoveries and speculations in certain chemical subjects and especially as regards the nature of the process of combustion and chemical affinities. As regards these subjects, he seems to have been far in advance of the scientific theories of his time, and to some extent to have anticipated the discoveries of Priestly and others of the following century. His pamphlet, *De Sale Nitro et Spiritu Nitro-æreo* (1674), maintains that atmospheric air undergoes change in its composition during the combustion of fuel. A collection of his writing, *Opera Omnia Medica Physica*, was published in 1681. He died when only 34 years of age.

MAYWEED, *Maruta colula*, a common road-side plant, growing also in pastures and meadows, belonging to the order *compositæ*. It is a native of Europe, but although widely spread in America, it is not an aggressive weed. The flower has somewhat the appearance of chamomile, and is sometimes called stinking chamomile. It has been classed as *anthemîs*, and the two genera are much alike.

MAZARRE DO Y SALAZOR, JOSÉ MARIA, Admiral, 1744-1812; b. at Bilbao, Spain; entered the navy in 1760; participated in the campaign against Algiers in 1775, and was the means of saving the remnant of the army from destruction. He negotiated peace with the regency, was made maj.gen. of naval forces, and took part in the naval operations against the British in 1780-83. He was promoted to the rank of lieut.gen. in 1789, and to that of commander-in-chief in 1793, and defended Cadiz against the British in 1797. He served as ambassador to Paris in 1799 and 1804; was a zealous supporter of Joseph Bonaparte, who made him counselor of state and minister of marine, which offices he held to the close of his life. As a scientific seaman his rank was high. He built the naval observatory at Cadiz, and published *Rudimentos de Tactica Naval*.

MAZDAK, a Persian religious enthusiast and founder of a sect; b. at Persepolis, A.D. 470. He became a priest at Nishapur. Professing himself a prophet sent to regenerate mankind, he obtained many followers, and declared a community of property. He succeeded in converting the king, Kobâd, and his system of communism made great changes in the social order. But the revolution was temporary. He was put to death with thousands of his followers between 530 and 540.

MAZZEI, PHILIP, 1730-1816, b. Italy; practiced medicine for a number of years in Syria, and was afterwards engaged in mercantile business in London. In 1773 he came to Virginia with a number of Italian emigrants, familiar with the cultivation of the olive, which he wished to domesticate in this country, but the experiment proved unsuccessful. He became a sympathizer with the American revolutionists, and made the acquaintance of many of them in Virginia, including Jefferson, with whom he continued to correspond after his return to Europe, where he was successively attached to the service of the king of Poland and the Russian czar. He published in 1788 *Historical and Political Researches on the United States*.

MAZZUCHELLI, GIOVANNI MARIA, Conte, 1707-65; b. Italy; studied jurisprudence, but gave much attention to scientific researches. In 1737 he published his *Notizie Storiche e critiche intorno alla vita e agli scritti d'Archimede*, describing the various inventions attributed to Archimedes, and questioning the story of the mirrors by which Archimedes was believed to have burned the ships of Marcellus at Syracuse. The favor with which this work was received induced Mazzuchelli to undertake the task of compiling a great cyclopædia of Italian literature and science from the beginnings of Italian civilization. The first two volumes of this work, completing the letter A., appeared at Brescia, in 1753. He lived to publish four additional volumes which carry the work through B. He also wrote *Dissertazioni Storiche, scientifiche ed erudite*, containing an account of the meetings of a literary society which was accustomed to assemble at his house. He wrote biographies of Scipio Cæpece, and Giusto de' Conti; and he edited Villani's series of biographies of illustrious Florentines. He left a large collection of ancient manuscripts, medals, and casts, which were engraved and published with a descriptive text by the abbé Pietro Gaetano, at Milan.

MAZZUOLA, FRANCESCO. See **PARMIGIANO**, *ante*.

MEAD, CHARLES MARSH, D.D., b. Vermont, 1836; graduated at Middlebury college, Vt. in 1856, and at Andover theological seminary in 1862. In 1863 he went abroad and studied at German universities until 1866. Returning to Andover he accepted the professorship of Hebrew. He has given two lectures in Boston on *Christianity and Skepticism*. He was one of the American editors of Lange's commentary on the Bible, and is a member of the Old Testament company of the American committee now (1881) engaged in the revision of the English version.

MEAD, LARKIN GOLDSMITH, b. Chesterfield, N. H., 1835; in the earlier part of his life resided at Brattleboro, Vt. In the year 1852 he began the systematic study of sculpture under Henry K. Brown, of Brooklyn. For this branch of art he had already shown a decided aptitude, and had attracted the attention of many artists by his first attempt in design, the execution *in snow* of the figure of an angel. His earliest work in

marble was a reproduction of this and was called "The Recording Angel." In 1857 he modeled the colossal statue "Vermont," which now crowns the dome of the state-house at Montpelier, the capital. "Ethan Allen," a finely executed figure of Vermont's hero, adorns the same building, and is one of the artist's later works. Mr. Mead spent some time in Italy and particularly in Florence, whence on his return he brought a number of statuettes, such as "Echo," "La Contadinella," and the "Mountain Boy." He is an excellent draughtsman, as well as sculptor. The Lincoln monument at Springfield, Ill., was erected from his designs. Among his later works are also the soldiers' monument at St. Johnsbury, Vt., and "Columbus's Last Appeal to Queen Isabella." His sister is the wife of William D. Howells, editor of the *Atlantic Magazine*.

MEAD, RICHARD, 1675-1754; b. at Stepney, England, not far from London. At an early age he entered the university at Utrecht, and, after three years' study, went to Leyden, where he entered upon the study of medicine under the noted professors Pitcairn and Herrmann. After taking his degree of doctor of philosophy and physics he returned to Stepney and began the practice of his profession in 1696. In this he soon won the very first place. In 1703 Dr. Mead was made a member of the Royal society, and lecturer at St. Thomas's hospital. Oxford bestowed a diploma upon him, and after long acting as physician to the prince of Wales, was continued in the office on his accession to the throne, as George II. His reputation both as a practitioner and as a writer on medical subjects was very great, and he was in constant correspondence with the most eminent scientists of the day in his own and foreign countries. Most of his publications were written in Latin. Among them were: *De Imperio Solis et Lune in Corpora Humana et Morbis inde oriundis*, (1702), *On Small Pox and Measles*, (1748) *Monita et Præcepta Medica*, (1751), and many others. His works were translated into English and passed through many editions. In addition to his acquirements as a physician, Dr. Mead devoted much time to the study of natural history, antiquarianism and numismatics. Memoirs of his life were published by Dr. Matthew Maty in 1755, the year after his death.

MEADE, a s.w. co. in Kansas; 720 sq.m.; watered by the Cimmaron river and its branches, and well adapted to grazing.

MEADE, a co. in Kentucky, on the Ohio river, which separates it from Indiana; 500 sq.m.; pop. 9,485; the surface is rolling, the soil fertile; live-stock, tobacco, corn, oats, and wool are the principal products. Capital, Brandenburg.

MEADE, GEORGE GORDON, 1815-72; b. Cadiz, Spain; his parents being temporarily in that country. On their return to America, he was sent to the boys' school in Washington, D. C., at that time under the direction of Salmon P. Chase, afterwards chief justice of the supreme court of the United States. On leaving this school, he was sent to a military school at Mount Airy; and from there, in Sept., 1831, entered the military academy at West Point, where he graduated in the summer of 1835. He entered the army as brevet second lieut. of the third artillery, and at the end of the same year, 1835, received his commission as second lieut.; but on Oct. 25, 1836, he resigned from the army, after having, however, seen some active service in the Florida war, even within his brief military experience. He now adopted the profession of a civil engineer; and between 1837 and 1842, was employed as an assistant engineer in the surveys made by the U. S. government of the delta of the Mississippi, the Texas boundary, and the north-eastern boundary of the United States. On May 19, 1842, he was reappointed to the army, with the rank of second lieut. of topographical engineers. On the breaking out of the war with Mexico, in May, 1846, when gen. Taylor crossed the Rio Grande, he was ordered to the front, and served throughout the war, being a member of the staff of gen. Taylor, and that of gen. Scott, and distinguishing himself in the battles of Palo Alto, Resaca de la Palma, and Monterey. He was brevetted first lieut., for gallant conduct at Monterey, in the five days' fight which closed Sept. 24, 1846. On his return to the states, the citizens of Philadelphia presented him with a sword. After peace was declared, lieut. Meade was employed in superintending river and harbor improvements, and in the construction of lighthouses on Delaware bay, and off the coast of Florida. He was promoted to be first lieut. in 1851, and capt. in 1856, and had charge of the national survey of the northern lakes until 1861, being at Detroit, Mich., at the period of the outbreak of the rebellion. He was ordered to Washington, and received his commission as brig.gen. of volunteers, bearing date Aug. 31, 1861, with the command of the second brigade of the Pennsylvania reserve corps. He was in the action at Dranesville, Va., Dec. 20, the first victory of the army of the Potomac; was at Mechanicsville, June 26, 1862; at the battle of Cold Harbor, on the following day; and served with his reserves, with which he had become identified, continuing with McClellan throughout the peninsular campaign, in McCall's division, being severely wounded at the battle of Frazier's farm (White Oak Swamp), June 30. He was appointed maj. of topographical engineers, June 18, 1862. On Aug. 29-30 he was engaged in the second battle of Bull Run; and in September took command of a division of the first army corps (gen. Reynolds'), and at the battle of Antietam was slightly wounded and had two horses shot under him. He was given command of the fifth army corps, and on Nov. 29, 1862, was commissioned maj.gen. of volunteers. He was engaged in the battles of Chancellorsville and Fredericksburg; covering the retreat at Chancellorsville with his corps, and

guarding the crossings, until the entire army was safely over the river. On June 28, 1863, he was unexpectedly ordered to relieve gen. Hooker of the command of the army of the Potomac. This was the period of Lee's invasion of Pennsylvania, and the union army was in hot march to interfere with his plans, and, if possible, drive his sanguine forces south again. Portions of Lee's army had reached York, Carlisle, and the Susquehanna; but upon the advance of the federal army, these were called together from their various posts, and by order of gen. Lee, drawn in, and concentrated for a great field struggle. Those which were at Chambersburg crossed the South mountain towards Gettysburg, and those that were nearer the Susquehanna converged upon the same point. This was done by Lee, apparently under the impression that Meade designed to cut off his communications. And had it not been for Meade's maneuvering, Lee would have crossed the Susquehanna and struck Harrisburg, and probably even have made a dash at Philadelphia. Gen. Meade now saw that a great battle was inevitable, and at first concluded to receive it at the line of Pipe-clay creek, a small stream running a few miles s.e. of Gettysburg. But on consultation with gen. Hancock, who had been appointed to gen. Reynolds's command (that distinguished officer having been shot), and on the selection of Gettysburg by the latter, as a better ground on which to fight the battle, he made that his choice. [Swinton's *Army of the Potomac*.] The great battle was fought July 1-3, 1863. See GETTYSBURG. Gen. Meade's commission as brig.gen. in the U. S. army, bore the last of these dates. For the inestimable service which he had accomplished by the victory of Gettysburg, he was publicly thanked by a resolution of congress passed Jan. 28, 1866: "for the skill and heroic valor with which at Gettysburg he repulsed, defeated, and drove back, broken and dispirited, beyond the Rappahannock, the veteran army of the rebellion." From May 4, 1864, to April 9, 1865, gen. Meade commanded the army of the Potomac, under gen. Grant, through the disastrous struggle in the Wilderness, and until the capture of Petersburg, and the surrender of Lee. On Aug. 18, 1864, he was commissioned a maj.gen. in the U. S. army. At the close of the war he was placed in command of the military division of the Atlantic, which command he retained from July 1, 1865, to Aug. 6, 1866. During the years 1866-67 he was in command of the department of the e.; and subsequently of the third military district of the s. (under the reconstruction laws), including Alabama, Georgia, and Florida, with his headquarters in Philadelphia. He was highly honored by his fellow-citizens for his high character, his great military ability, and the important share he had borne in the war of the rebellion. Philadelphians presented him with the house in which he died (Nov. 6, 1872); and after his death a fund of \$100,000 was collected by subscription, and presented to his family.

MEADE, RICHARD KIDDER, 1750-1805; b. Virginia, was educated in London at the famous grammar school of Harrow, and, returning to his native state, at the age of 25 he commanded a company in the battle of Great Bridge, near Norfolk, Dec., 1775, the first engagement of the revolutionary war fought on Virginia soil. In 1777 he was promoted to the rank of col., and to the position of aid to gen. Washington, serving in that capacity until 1783. He was a prompt and faithful subordinate, always at hand, and rendered signal service to his country. He was present in an official capacity at the execution of maj. Andre. After the war he lived in retirement on his estate in Clarke county.

MEADE, RICHARD WORSAM, 1778-1828; b. Chester co., Penn.; son of George of Philadelphia, who was noted among his contemporaries for his ardent support of the revolution, in aid of which he contributed very large sums. The subject of this sketch very early in life engaged in the shipping business at Cadiz, Spain, where he sympathized with and assisted the Spanish patriot party, and during the peninsular war imported great quantities of provisions into Cadiz, then in a state of siege. From 1805 to 1816 he occupied the post of commercial agent for the United States, and in the last named year was arrested and imprisoned for two years in the castle of Santa Catalina on charges of conspiracy against the government. On the peremptory demand of the U. S. diplomatic agents, he was released; but his business had been completely ruined by his unjustifiable treatment, and a long legal contest for compensation ensued, in which Webster and others of our most eminent lawyers were engaged for him, but unsuccessfully. In this country Mr. Meade engaged in a large importing trade, made a large fortune, and his private art gallery was one of the first collected here by a private individual.

MEADE, WILLIAM, D.D., 1789-1862; b. in what is now Clarke co., Va.; educated at Princeton college, and after graduation in 1808 studied theology. For many years, as a clergyman of the Protestant Episcopal church, he gave his services without any charge; in 1829 he was appointed assistant bishop, and in 1841 bishop of the diocese of Virginia. It is worthy of note that, at the outbreak of the rebellion, he was earnestly opposed to the secession of his state. His principal literary productions are: *Lectures on the Pastoral Office*; *Letters to Students*; *Lectures on Family Prayers*, and *Old Churches, Ministers and Families in Virginia*; besides many papers published in church periodicals. An account of his life has been written by Dr. John Johns, who, in 1842, was appointed his assistant in the Virginia bishopric.

MEADOW LARK, an American bird belonging to the order *Insectores*, sub-order *conirostres*, family *sturnidæ* or starlings, genus *sturnella*, common species, *sturnella magna*.

It is a common bird of the eastern and middle United States, extending s. as far as Texas, inhabiting southern parts in winter, and going as far n. as the St. Lawrence river in the summer to breed. They are therefore birds of passage, returning to the south in flocks in the autumn, but while breeding, are not gregarious. They are beautiful singers, their songs being of the most joyous character and performed when flying high in the air, as well as when skimming over the meadows. Like most of the lark family they build their nests on the ground, among the green tall grass of the meadows. They live upon insects and seeds, and are said to sometimes kill smaller birds. Their eggs, from four to five, are white with beautiful reddish brown spots, and are laid in oven-shaped nests. Body robust; legs and claws strong; tail yellow beneath, yellowish with brown bars above, with pointed feathers; whole length of body and tail 9 or 10 in.; back, dark brown, each feather having a brownish white margin and a brown terminal spot; breast and under side yellow, with a beautiful, black, pectoral crescent, convexity downwards; bill about an inch long, and characteristic of the family, although rather more slender than the average. See LARK, *ante*.

MEADOW MOUSE, an animal belonging to the order of rodents, family *muridæ* (rat family), genus *arvicola* (voles). There are many kinds of mice. See MOUSE, *ante*. The meadow mouse here designated, the *arvicola riparia*, is American. It is about $4\frac{1}{2}$ in. in length with a tail about $1\frac{1}{2}$; feet large and scaly; hair short; eyes small; no thumb on fore foot; color of back darkish brown, varying in depth, ashy on belly. Several species are described in the 8th vol. of the Pacific railroad survey. The European species are called campagnoles and voles; some of them are aquatic, digging in the marshes and banks of streams.

MEADOWS (*ante*). The propriety of confining the word meadow either to moist or to level lands covered with grass is doubtful, for though moisture is essential to the growth of grass as to all other crops, and level ground is preferable to rugged, no greater moisture or more level surface is required for good meadow land than for good corn land. Marsh hay is made from marsh meadows, both fresh and salt; while timothy and red clover, grown for hay, flourish best in rich soils not particularly moist, and derive the same advantage from deep-till drainage as other field crops. Grasses of the red-top family grow best in soils a little more moist than required for the best growth of timothy. Meadows are more comprehensively defined to be lands growing grasses suitable for hay, whether upland or low land, seeded by hand as on farms, or growing wild on marsh alluviums, or western plains, or mountain valleys. The vast prairies in the basin of the Mississippi were probably the greatest extent of natural meadows in the world. Where these grasses were fed down by cattle they ceased to be meadows and became pasture. The use of mowing-machines has quite revolutionized the labor of cutting hay within the past thirty years, and by their use long reaches of narrow valleys among the drier plains, and still narrower bottoms of defiles in the Rocky mountains, are made to yield hay for the needs of regions where hand labor could not be obtained to do the work. The second mowing of meadows in one season is called the aftermath. The seed of clover is usually obtained from its second cutting. In connection with landscape effects meadows and pasture-lands are grouped together, and it is one of the beautiful effects of cultivated crops in scenery that their different colors and modes of growth checker a landscape with varieties of light and shade never seen where there is no cultivation. A meadow before the cutting, by the side of one recently cut, makes a contrast as of two different crops, more marked than the contrast between the uncut meadow and the pasture-field. There is no season of the year when lights and shadows in rural scenery are so charming as just after the harvest, or when the hay cutting is nearly done, and the shadows of trees and clouds are brightly outlined on their shaven stubble.

MEADVILLE, a city in n.w. Pennsylvania, incorporated 1866; on the e. bank of French creek at its entrance into the Alleghany river, and on the Atlantic and Great Western railroad; pop. '70, 7,103. It is the terminus of the Franklin branch railroad to Oil City, the center of a fertile agricultural region, well watered, and having a large production; and is a central shipping point, market, and depot for the oil regions. Petroleum oil, lumber, and grain are the chief products of Crawford co., in which it is situated, 100 m. n. of Pittsburg, 36 m. s. of Erie, and 24 m. w. of Titusville. It is the seat of a Unitarian theological seminary, established 1844, with a library of 12,000 vols., and of Alleghany college, a Methodist Episcopal institution, founded 1817, open to both sexes, having a library of 12,000 volumes. It has an elegant court house, 3 hotels, 15 churches, good public schools in handsome edifices, 6 banks, 2 of them national with a joint-capital of \$300,000, a public library of 3,000 vols., a state arsenal, 4 newspapers, and an opera house. It has a public park; and Greendale cemetery, pleasantly located and tastefully laid out, is in the immediate vicinity. Its leading industries, which are important, are the manufacture of agricultural implements, carriages, engines, wooden shoes, edge tools, paper, and woolen goods; and it has oil refineries, machine shops, and extensive railroad repair shops.

MEAGHER, a co. in central Montana, having the Missouri river for its w. boundary, drained in the s.e. by the Muscleshell river, an affluent of the Missouri, and in the n.e. by the head waters of the Judith river; 7,650 sq.m.; pop. '80, 2,744—2,095 of American birth, 285 colored. Its surface is composed of mountain, plain, and valley; its plains stretch-

ing out for miles treeless and verdureless, covered with the short brown buffalo-grass, with no break to the monotony but the telegraph poles, 30 to a mile, along the river, and the print of wagon wheels, the double track of the team, and the single track of the pony by its side. In other sections the mountains of the Belt and Snowy range rise into steep buttes, round and smooth, or jagged by the action of the atmosphere, around whose sides the road cautiously winds, or precipitates itself through narrow cañons overlooking the beautiful green lawns of the Judith valley, where suddenly appears the "shack" (log house) and wood-pile of the frontiersman, the harbinger of swift-coming civilization. In this wide, fertile valley the soil is adapted to stock-raising, and the culture of all northern products that will survive its winters. It contains some of the best land in that part of the country for the cultivation of apples and pears; and butter is one of the chief commodities. It is being rapidly settled by emigrants from the southern and western states, and its agricultural products are beginning to attract notice. Placer mining of gold in the mountains has been the greatest source of its wealth. Seat of justice, Diamond City.

MEAGHER, THOMAS FRANCIS, 1823-67; b. Waterford, Ireland; educated at the Jesuit college of Clongowes Wood, and Stonyhurst college, Lancashire, Eng. He was a close and earnest student, and in 1842 was awarded the silver medal for English composition, defeating more than fifty English students. On completing his studies he interested himself in Irish politics, and became one of the "Young Ireland" party; and, displaying great oratorical powers, was a very popular leader. On the outbreak of the French revolution in 1848 he was sent to Paris to congratulate the republican leaders. On his return to Ireland he was arrested on a charge of sedition, held to bail, afterwards tried for high treason, found guilty, and sentenced to death; but subsequently the sentence was changed to banishment for life to Van Diemen's Land. He was accordingly transported thither, but escaped in 1852, and succeeded in reaching New York. Here, for two years, he devoted himself to lecturing, with great success. In 1855 he commenced practice at the New York bar, and the following year became the editor of the *Irish News*. At the beginning of the rebellion in 1861 he organized a company of zouaves, joined the 69th regiment, N. Y. volunteers, was acting maj. at first Bull Run, and after serving the three months of the first call, returned to New York and organized the Irish brigade, being commissioned brig. gen. Feb. 3, 1862. He was engaged in the seven days' battles, at Manassas, and at Antietam, being specially commended by gen. McClellan in his report of the latter engagement. At Fredericksburg he was seriously wounded in the leg while charging with his men on Marye's heights, and was incapacitated for further fighting. He resigned temporarily, but was recommissioned in 1864, and held command in Tennessee and Georgia, performing distinguished service. In 1864 he was appointed secretary of Montana territory, and for some time performed the duties of governor in the absence of that official. On July 1, 1867, he fell from the deck of a steamer, at fort Benton, on the upper Missouri, and was drowned. He was at the time traveling to take measures for the protection of the white settlers in that region, threatened by the Indians. One of his last acts was to contribute to the pages of *Harper's Magazine* a most entertaining paper entitled "Rides through Montana," and which was designed to be the first of a series. Three weeks before his death he wrote to his publishers as follows: "Ever since I dispatched to you the text of my paper on Montana I have been in the field 200 miles from here against the Sioux and other implacable red devils." He published, also, *Speeches on the Legislative Independence of Ireland*; and *Last Days of the 69th New York Regiment in Virginia*. He was a man of brilliant and versatile capacity, and a soldier of unfailing resources and marked personal daring.

MEAL-TUB PLOT. An attempt at conspiracy which Dangerfield made in 1679 against James duke of York; so called because the paper containing the scheme was hid in a tub of meal in the house of Mrs. Cellier. Dangerfield, having at length admitted that the whole affair was a forgery, was whipped and compelled to stand in the pillory.

MEANS, ALEXANDER, D.D., LL.D., b. Statesville, Iredell co., N.Y., in 1801; was educated at the academy at Statesville; removed to Georgia in 1822, and after teaching school for four years attended medical lectures at Transylvania university, Ky., and commenced the practice of medicine in Covington, Ga., 1826; the same year was licensed to preach by the Methodist Episcopal church. In 1834 he was appointed to superintend the manual labor school near Covington; was chosen professor of the natural sciences at Emory (now Oxford) college. After a service here of 18 years, he was appointed in 1840 professor of chemistry and pharmacy in the medical college of Georgia, at Augusta, lecturing in winter, and performing his duties as professor in Oxford college 8 months of the year. In 1853 he presided over the masonic female college in Covington; was called to the presidency of Emory college in 1854, and shortly after to a professorship of chemistry in the Atlanta medical college, accepting the latter and retaining it for 12 years. In 1851 he traveled in Europe. In the state convention of 1861 he spoke and voted against secession, but afterwards identified himself with the south. He has held since the war the position of state agricultural chemist at Savannah, retaining at the same time his connection with Emory college. He has published *Centennial of Chemistry*.

MEARES, JOHN, 1746-1801. b. England; entered the navy in 1776; served against the French in the West India islands; became captain in the merchant service after the peace of 1783; went to India and formed at Calcutta what was called the *Northwest America company* for opening trade with Russian America. In 1786 he explored a part of the coast of Alaska; went to China by way of the Sandwich Islands; entered Nootka sound, 1789; examined and took possession of the neighboring coasts in behalf of England, and reached Macao Dec. 5, 1789. He published *Voyages made in the years 1788-89 from China to the northwest coast of America*, 2 vols.

MEARIM RIVER; in Brazil, called also the Miarim and the Maranhao, rises in the n. central part of the province of Maranhao, and follows a general northerly direction, emptying into the bay of São Marcos. It has many affluents, of which the most important is the Pindare. Its entire length is about 350 m.; it is navigable, and several steamers ply upon it. The river is specially notable for the tremendous force of its current, which for a long time resists the action of the tide, and is at last overcome with a roaring sound and an exceedingly swift rush upward of the waters.

MEASURE OF DAMAGES, the body of rules which governs the amount of pecuniary compensation awarded by courts of justice for violation of personal or property rights. In its most extended sense it might be said to cover almost the whole ground of legal procedure; but is used not to represent inquiry as to what cases require the award of damages, but rather, as to what limit should be placed on the award in certain cases. The rules apply to common law rather than to equity, as the former is, in general, remedial in its nature, and the latter preventive, offering injunctions, specific relief, etc. In early English law the question of damages was left to the jury, while in countries whose jurisprudence is founded on the civil law, the question was left to the discretion of the magistrate; but common law declares that the compensation must be fixed by those legal rules which form the Measure of Damages; though these are not as yet free from contradiction and discrepancy. "The general rule," says Story, "is that whoever does damage to another, is liable in damages to the extent of that injury; it matters not whether it is to the property or person or rights or reputation of another." But not every loss gives right to legal relief; the injury must be *legal*. Thus injury to moral sentiments has no remedy. Suit cannot be sustained by a private individual for a public wrong, as a highway nuisance, unless there be some element of special injury to him. Injury may consist in direct or indirect pecuniary loss, value of time, expenses such as costs and counsel fees, mental suffering and the sense of wrong or insult arising from the intention to vex or annoy. But the law will refuse to give compensation for any of these kinds of injury except direct pecuniary loss and the costs of the suit, unless, indeed, there be present the element of malice and willfulness; or, as has been said, it will divide the loss, discriminating between that which must be borne by the offending party and that which must be borne by the sufferer; but where there is fraud, malice, or gross negligence, vindictive or exemplary damages will be given. In quantity, the damages may be nominal or substantial; nominal when there is *injuria sine damno*, legal injury but no actual loss. The giving of nominal damages often suffices to establish rights or titles, as in action for trespass on lands. It is well settled in American law that where there is *any* invasion of right there must be at least nominal damages, and it is often the duty of the court to so instruct the jury. In such cases care should be taken not to hold the defendant for costs, if the action is trifling and tinged with malice.

What may be included under consequential damages? Usually the consequences must be direct and immediate; in the words of the N. Y. supreme court, "must be the fair natural and legal result of the breach of the defendant's agreement. Prospective or continuing profits are usually excluded, if not very clearly the natural result." Thus in a suit for price of a steamer, the profits on trips she might have made were disallowed. But when goods have deteriorated in market value the courts will give compensation for the loss. If there is no element of contingency and the profit was certain and actual, it will be admitted. In torts, also, the damages are confined to direct consequences, but incidental expenses are sometimes allowed. In a case where an anchor was warranted, it was held that the holding of the cable was of the essence of the warranty, and it was even implied that if the ship were lost by the imperfection of the anchor, a suit would lie for its value. If an act is illegal or mischievous of itself the courts will go far in construing the law of consequential damages. If a plaintiff could have avoided the injury without loss or danger he cannot recover; and this law of contributory negligence is very important in torts such as nuisance or collision. As to award of costs, there is some conflict; but they usually go with the verdict, unless the suit be vexatious and won on mere technical rights. Though, as a rule, damages are only allowed for injury up to the time action is brought, yet in many cases of contracts where successive suits are impossible from the *entirety* of the contract, and in torts and trespass, greater latitude is allowed. If, in a continuing agreement the violation has, of necessity, entailed loss after the bringing of action and if the loss is certain and ascertainable, prospective damages will be given. And in torts the averment may be of loss *probable*; as, in case of injury by negligence of a railroad, it may be set forth that plaintiff's health is permanently injured. In case of a contract to pay money, there can be no consequential damage beyond legal interest; if it be to do or not do some act, the law will consider only

those consequences which seem to have been in the contemplation of the parties at the time; and in case of torts in which no fraud or malice enters, only natural and proximate consequences are considered. In regard to real estate, it was formerly thought to be in the very nature of actions for possession that damages did not lie; but there has been much statutory enactment on the subject, and damages are now generally allowed in actions of ejectment and dower. In the first, the damage in the actual ejectment is almost always nominal; but, though the improvements pass with the land, *mesne profits* are given to the plaintiff to the extent of the annual value, as well as costs and sometimes interest and compensation for his trouble. In New York, for instance, interest is allowed on rents, but all *equitable* defenses are admitted. In dower the English law of damages is governed by the statute of Merton, and it is generally held here that damages accrue after a husband's death and are to be measured by one-third the *mesne profits*; but the usual course in dispossession from dower land is by action of ejectment, the old writ of dower having fallen in disuse. Without going into details as to the measure of damages in cases of trespass, waste, nuisance, and real covenants, it may be said that with few exceptions the general rule of natural relation and compensation for actual injury governs. In contracts, many and important classes are presented, such as negotiable paper, insurance, sale and warranty of chattels, agency and suretyship. In all these the jury has lost much of the power possessed in former times, and it is well settled that it is for the court to determine the measure of damages and for the jury only to determine the amount under that rule. It is clear that the motives of the contracting parties do not fix the rule, though in breach of promise of marriage the jury may take all facts into consideration, as it is impossible to formulate a law of damages which will cover the peculiar injury. Other exceptions exist; but, where the contract is not unconscionable, it furnishes the measure of damage itself. Contract price is recoverable and actual loss is the basis of compensation, so that *quantum meruit* applies. With all negotiable paper the measure is easily and arbitrarily fixed by the legal rate of interest. Marine insurance has special laws arising from the nature of the peculiar doctrines of general average and total and partial loss; in fire insurance the actual loss is the measure; while in life insurance no actual loss need be shown by the assignee of a policy. In contracts for the sale of personal property, the vendee after breach of contract by the vendor can, by the usual rule, recover only the difference between the contract price and that on the day fixed for delivery; but it has been held in cases involving stock transactions that the vendee can recover the highest price reached by the stock in the interval. The vendor can recover full price as against the vendee on refusal of the latter to receive the goods, even though they are not actually delivered. Warranty of personal property is governed as to damages by the actual value and not the contract price, if there be no fraudulent representations. The principle has been disputed but is now well settled in this country. A surety must pay the claim he guarantees before he can sue his principal, and his damage is measured by the amount, interest, and costs. An agent can be sued by his principal for the whole loss incurred by his negligence, even though not the direct consequence of his act; and in such cases cannot offset his commission. In actions against common carriers indemnity is afforded for actual loss at time of injury; the value of goods destroyed is estimated at the place of destination and interest is reckoned under the law of that state. Where transportation of a passenger is refused, after contract to do so, the injury by loss of time and wages or profits is the measure. But the loss must be actual; thus the rate of wages in the plaintiff's trade at the place of destination was admitted as evidence of probable loss but not to set the measure of damage; and courts have even said that the expenses of an illness following but not caused by railroad detention and prolonging such detention might be included in the damages, so far as they were in excess of what they would have been elsewhere. Where a telegraph company undertook to transmit a message and, by their negligence, plaintiff lost a chance to collect an otherwise worthless debt, the corporation was held to be a common carrier and liable. Other decisions are averse to this doctrine. Dispute on the point is usually avoided by provisions made part of the contract, disclaiming such responsibility. If the company is a common carrier it is, in effect, an insurer, is bound to use more more than ordinary care, and liable for consequential damages.

Interest is always allowed when a sum is to be paid at a certain time, the law assuming that legal interest begins at that date; and the courts of this country have been very liberal in inferring that an understanding for interest existed; but if claims are uncertain or unliquidated, interest will not be allowed. A most important distinction exists between liquidated damages and a fixed sum agreed upon as a *penalty*, as in bonds. In the first case the parties have fixed a sum certain as the measure of damage from breach of contract; but the courts will often refuse to consider the amount as intended to be absolute and will measure the actual loss. The intent of the parties on the point must govern rather than the language. The tendency in this country is to frequently consider a stipulated sum as liquidated damages and but rarely to regard it as a penalty; and the first, especially if there is appearance of usury or oppression; and, if there is nothing to certainly determine the damages *outside* of the stipulation, they will invariably be considered liquidated. Recoupment and set-off will be allowed even where the demand is not for a liquidated sum.

Vindictive or exemplary damages have already been referred to. The principle

applies mainly in cases of tort and very materially enlarges the considerations regarded in fixing the measure of damages. Where there has been maliciousness, or fraud or evil intent, the jury may go beyond the principle of compensation and punish defendant by heavier damages. In torts the intent of the wrong-doer is of great moment, and though it may seem incongruous that the penalty should be paid to the plaintiff rather than to the state, yet in practice it is the most effective mode of punishment. The rule that the jury may take evil intent into consideration is now well settled both in England and in the United States. In cases of libel and slander the law will often not require the least proof of actual injury, a distinction being drawn between words actionable *per se* where damage is presumed, and other libels in which actual injury must be set out. The subject of measure of damages will be found treated in detail in works devoted to the special topic by Maine, Field, and Sedgwick, and its application to various branches of jurisprudence is set forth under many heads in Parsons *On Contracts*, Greenleaf *On Evidence*, and Redfield's *Railroad Law*.

MEASURES. See WEIGHTS AND MEASURES, *ante*; METRIC SYSTEM.

MEAT EXTRACT, a substance of a composition varying with the process employed, extracted from beef or mutton or other animal flesh, and used as an article of diet. The well known common beef tea is made in various ways, and differs greatly in strength. A common method, and perhaps the best when required fresh and condensed, is to put the chopped meat without the addition of any liquid in a bottle and immerse this in a vessel of water at about 180° F. The blood, lymphatic, and muscular juices ooze out of the meat and form a red liquid containing a large amount of soluble nutritious proteine matter. If this is heated to the boiling point, there will be considerable coagulation and the fluid extract will not be so easily digestible. If the meat, on being heated to about 180° F. be pressed, most of the nutritious substances will be expressed, and the extract so obtained, on being evaporated, may be brought to any desirable degree of solidity. This solid extract, by the addition of common salt, can be kept, especially in closed jars, an indefinite length of time, and makes, when mixed with hot water, an excellent beef tea for the sick room. Another method of making beef tea is very common, and in many cases perhaps the best, because it is seldom that it is desirable to have it in too condensed a state. Patients require considerable drink, and this is conveniently given in well-seasoned beef tea, made by heating chopped beef in water to about 200° sufficiently long to extract most of the nutritious material. It is more palatable than that extracted by the bottle process, and for food and drink combined is in most cases superior. A portion of the meat may also be boiled and made into a broth, where the patient's stomach is in a condition to digest it readily. The albuminoids are, of course, precipitated by boiling, but the shreddy precipitate may be taken with the clear liquor often with benefit.

MECCA BALSAM. See BALSAM OR BALM OF GILEAD, *ante*.

ME'CHAIN, PIERRE FRANCOIS ANDRÉ, 1774-1805; b. France; studied for a time at the school *des Ponts et Charussées*, which he was compelled to leave for want of money. He then gave instruction in mathematics, giving all his spare time to the study of astronomy. Soon afterwards he was accidentally brought to the notice of Lalande, who had bought of him an astronomical instrument, which poverty had obliged him to sell. Lalande secured him a place as government hydrographer. In this capacity Mechain drew up a number of marine charts, and made a survey of a part of the French sea-coast. He still pursued his astronomical studies, investigated the theory of eclipses, calculated the orbits of 24 comets, and discovered 11. The academy of sciences gave him its prize for his paper on the comet of 1530, and in 1782 he was elected to membership of the academy. In 1791 he was employed, at the suggestion of the academy, to measure a portion of the arc of the meridian between Dunkirk and Barcelona, which the national convention had selected to form the basis of their new system of measures. He continued his observations at the Paris observatory after his return from Spain. Under the auspices of the French board of longitude he went once more to Spain to continue his measurements of the arc of the meridian, but he was taken ill soon after his arrival and died at Castellon. His publications were not numerous; they are papers chiefly on eclipses and the theory of comets, contributed to the *Transactions* of the academy of sciences, and to the *Connaissance du Temps* of which he was at one time editor.

MECHANICAL CALCULATION. See CALCULATING MACHINE, *ante*.

MECHANICS, ANIMAL. A moment's reflection shows that this subject is exhaustless, the application of forces and the variation in the mechanism being infinite, and this, without embracing molecular mechanics or kinematics, which would necessarily be involved in a minute study of the action of the nervous system. We must, therefore, content ourselves with a few brief general illustrations of the more obvious vital mechanical movements. The simplest examples are the hydromechanics of some of the lower infusoria, where the animal is propelled through its native element by the reaction of water forced out of a single orifice by the contraction of the simple cell which forms the body. Some of these minute animals have cilia which also serve as locomotive organs. Other hollow animals of a higher organization propel themselves through water

in a similar manner, as those belonging to the sub-kingdom *cœlenterata* (q.v. in art. *INVERTEBRATE ANIMALS*). These animals are also provided with filamentary tentacles which have contractile properties, and the power of forming hooks or prehensile organs. The mechanism of the circulation in the *cydippe*, a *cœlenterate* belonging to the order *Ctenophora* is exceedingly interesting. It consists of a complex canal system, the tubular branches of which are lined by a ciliated endoderm for the purpose of keeping up within them the circulation of water. These animals, although no doubt assisted by the contractions of the body cavity, are propelled by certain organs called *ctenophores*, or parallel rows of cilia, which are arranged in comb-like plates longitudinally upon their globular or oval bodies. Some infusorial animals, as the *rotifera* or wheel animalcules, included in a higher sub-kingdom (*annulosa*), possess a highly mechanical organization, approaching somewhat, in that respect, the insects. The characteristic wheel organ consists of a retractile disk carrying numerous cilia which, by their successive rapid vibrations, produce the illusory appearance of a rotating wheel. The motions are regarded as having an action similar to that of a screw propeller, and as aiding in locomotion as well as serving to throw currents of water into the mouth. All the movements in these soft-bodied animals involve as complex mechanical principles as those which are exhibited in the action of muscles and tendons upon framework which serve as levers in the higher animals. The locomotion of fishes involves similar applications of force in the oblique manner in which the sides and tail fin are brought to act against the water in which they swim, and also in the position of the pectoral and other fins, which give direction, and are not—with the exception of the dorsal and caudal fins—organs of propulsion in ordinary swimming, as is sometimes supposed. When a fish is comparatively quiet he may change his position by the action of all the fins, and a backward motion is often produced by a paddle action of the pectoral and ventral fins. The oblique action of the sides of a fish against the water is of the same nature as that of a ship when tacking against the wind, or of the paddles of a screw propeller, or of an oar in sculling, or of a serpent in running through grass, and involves mathematical elements of all orders, from the simplest to the most complex.

The attempted solutions of the application of force in the locomotion of fishes, which represent the whole of the tail and latter part of the body as moving alternately from side to side, and producing alternate periods of retarding and of forward action, are founded upon erroneous views. No fish, not even the clumsiest, propels itself in accordance with such crude mechanical principles. The longitudinal line of the latter part of the body presents a number (depending upon the form and flexibility of the fish) of serpentine curves, of more or less depth, whose combined action produces (in the most rapid motions) an almost uniform forward propelling force, and in one direction, except when the fish curves its body for the purpose of turning, or altering its course. The body and tail fin do not oscillate in one curve, but the fin is always applied to the water in a direction which tends to propel the body forward, and its suppleness and flexibility are qualities given to it for this purpose. The complex mechanism displayed in the higher animals and in man is all the more interesting because of its involving the simpler principles of the mechanical powers, particularly the lever and pulley, as well as those of oblique action in fishes, which includes in its elements the principle of the inclined plane. The lines of force in the action of the muscles, as applied to the bones, undergoing, as they do, constant variation of direction, present, however, equally difficult mathematical problems if it is required to estimate the expenditure of power. The apparatus for mastication and deglutition in various classes of animals furnishes one of the most complex subjects of investigation, one, indeed, whose elements are, in their final results, insolvable, on account of the constantly variable condition, quality, and quantity of food, involving, as it does, constantly varying applications of muscular force, and constantly varying capacity and form of the mouth and pharynx. Most of the movements are produced automatically, but the perfect adaptation of the mechanism to the required functions is none the less wonderful. The masticating apparatus in various animals is as various as the animals themselves; and one is adapted to the other so perfectly that many have adopted the idea that the development of the organism must have kept pace with the development of an appetite, or a change of circumstances. It is maintained by others, however, that there are facts in anatomy which render such progressive development hypotheses improbable; as, for instance, the arrangement of the superior oblique muscle of the eye-ball. One end of this muscle is attached to a part of the sphenoid bone at the bottom of the orbit; it then passes forwards to a cartilaginous ring or pulley which is attached to the frontal bone at the inner angle of the orbit, and becoming a rounded tendon it passes through this pulley and is then turned backward, becoming again muscular. It then expands into a broad band which is inserted into the sclerotic coat of the posterior and outer surface of the eye-ball. It is difficult to imagine how the force of an impending function, or any physiological want, could cause the development of such a piece of apparatus. It is so much of a contrivance, to all appearances, that the elements of design and of immediate creation cannot well be denied recognition. The internal mechanism of the eye-ball is held to afford as much evidence of design as that furnished by the superior oblique muscle. For the purpose of accommodating the eye to vision at different distances; among other provisions, the degree of convexity of the crystalline lens requires to be constantly changed. This is

ected by the ciliary muscle, a circular organ situated at the outer border of the iris and at the junction of the cornea with the sclerotic coat. As examples of the "mechanical powers" in the mechanism of the human body, we find the cord and pulley in the arrangement of the superior oblique muscle of the eye, instanced above; the first kind of lever, that where the fulcrum is between the resistance and power, in the support of the head upon the *axis* (the upper cervical vertebra) and the depression of the occiput and elevation of the face by the contraction of the extensor muscles of the neck, and also in the arm when the extensor muscles act upon the olecranon process of the ulna. See SKELETON. The arm also affords an example of the third kind of lever when acted upon by the flexor muscles, the power being applied between the hand and elbow joint, which is the fulcrum. The raising of the body upon the toes is usually instanced as an example of the second kind of lever. It is evident, however, that if a person lies upon the back and places his toes against a resisting, but movable, object, and pushes it away, he will virtually be performing the same mechanical operation, as far as the foot is concerned, as when rising upon his toes, and the relations of the toe, the ankle joint, and the heel will be precisely the same; that is to say, the ankle joint will be the fulcrum, the application of the toe will be at the point of resistance, and the power will be applied by the tendo-achilles at the heel. In raising one's self upon the toes, therefore, the ankle joint is in reality a movable fulcrum. Moreover, the first and second kinds of lever are convertible into each other by making the resistance in the first kind stationary and causing the fulcrum to move. One of the most celebrated and elegant essays upon animal mechanism is the Bridgewater treatise for 1834, by Sir Charles Bell, on *The Hand, its Mechanism and Vital Endowments as Evincing Design*. The mechanical contrivance known as the toggle joint, sometimes spoken of as one of the mechanical powers, but which acts upon the principle of the inclined plane, is exemplified in the knee joint. When the knees are considerably bent it is difficult to raise a heavy weight, but as the legs become straighter the power over resistance becomes enormous. Of course the toggle, or knee joint, in this instance is moved by the application of muscles and tendons to levers whose arms (thighs and legs) are also the arms of the toggle joint. In reality the operation of raising the body from a sitting posture combines the principles of two mechanical powers, the lever and inclined plane, the hip forming a toggle joint as well as the knee. See TOGGLE JOINT.

The mechanics of aerial motion in birds furnishes one of the most interesting subjects of philosophical inquiry and physical research, and has been ably treated by the present duke of Argyll in a work called "The Reign of Law." See also in this cyclopædia the article on BIRDS. An examination of the anatomy of a bird is a source of never-ending admiration to the student of natural history. It reveals the most perfect adaptation of means to results—and results, too, which would seem impossible if one had never witnessed the phenomenon of aerial flight. To watch a bird—like one of the larger sea-gulls, poise itself without flapping its wings for a quarter of an hour or more, and when the wind is blowing, for an indefinite space of time, or as long as the bird can be seen, without descending from its altitude of several thousand feet, but floating aloft like a kite held by a cord, now rising with majestic motion, and now darting obliquely downward with immense speed—is one of the most fascinating of recreations. Scarcely less wonderful is the flight of insects, and perhaps none of the class possess the power in greater perfection than the common fly. See FLYING, *ante*, and INSECTS, *ante*.

MECHANICSBURG, a t. in s. Pennsylvania, incorporated 1826; in Cumberland co. in close proximity to the iron region, at the junction of the Cumberland valley railroad and the Dillsburg branch; pop. '70, 2,569. It is 8 m. s.w. of Harrisburg, and 10 m. e. of Carlisle. It is the seat of the Cumberland Valley institute and the Irving college for women, and has excellent educational advantages in free schools, and a public library. It is lighted with gas and has an abundant water supply, and 5 hotels. Its industries are represented by manufactories of sashes and doors, paper mills, foundries, and spoke and bending works. It has a variety of stores, is the shipping point for iron ore, and a depot for supplies for the iron region.

MECHANICSVILLE, BATTLE OF, fought at the village of that name in Henrico co., Va., June 26, 1862. The battle-ground is within 7 m. of Richmond, and the intervening country was held by the confederates, commanded by gen. Lee in person, with his forces strongly concentrated immediately about the capital. Mechanicsville was occupied by the advance of the federal troops—a regiment of infantry and a battery. On the afternoon of the 26th the movement was begun by the confederate gen. A. P. Hill crossing the Chickahominy and advancing on the federals, who retired about a mile to a strongly intrenched position held by gen. Fitz John Porter, on the left bank of Beaver Dam creek. This movement uncovered the Mechanicsville bridge, and enabled gens. Longstreet and D. H. Hill to cross the river and march down its left bank with the design to attack the federal communications with the York river. But the federal position was discovered to be stronger than had been anticipated by gen. Lee when he made his plans; and the confederates found themselves exposed to a galling fire of artillery and musketry, the approaches to their line of battle being over open fields swept by their batteries. Continued assaults being unsuccessful, the confederates were forced to retire, with a loss of between 3,000 and 4,000; the federal loss being under 400, and only a

portion of their force engaged. On the arrival of Stonewall Jackson the next day, the federal position was abandoned.

MECHERINO. See BECCAFUMI, DOMENICO.

MECHI, JOHN JOSEPH, b. London, 1802; of Italian descent; became in youth a clerk in a mercantile house, and in 1827 set up business for himself and opened a cutler's shop. Having obtained a patent for a "magic razor strop," he acquired a fortune from its sale, and in 1840 bought a farm of 170 acres at Tiptree Heath, Essex, making experiments in scientific agriculture. He was ridiculed for his experiments, but by deep draining, steam ploughing, and by liquid manures conveyed through subterraneous pipes, he made his farm before sterile very fertile and profitable, and indeed one of the notable farms in England. He has been an alderman and sheriff of London, and was a commissioner to the Paris exhibition of 1855. He has published *Letters on Agricultural Improvements; Experiments in Drainage; How to Farm Profitably.*

MECKEL'S GANGLION, or SPHENO-PALATINE GANGLION, the largest of the four sympathetic ganglia situated in the cephalic region, the others being the ophthalmic (q.v.), the otic (q.v.), and the sub-maxillary (q.v.). It lies in the sphenomaxillary fossa, close to the sphenopalatine foramen. It is triangular or heart-shaped, of a reddish gray color, and was first described by Meckel. It is connected with the superior maxillary nerve, which is a branch of the fifth cranial nerve (sensory), with the seventh cranial nerve, called the facial (motor), and with the carotid plexus (sympathetic) through the vidian nerve. Its branches are divided into four groups: 1. Ascending, passing to the orbit of the eye; 2. Descending, passing to the palate; 3. Internal, passing to the nose; 4. Posterior, passing to the pharynx.

MECKLENBURG, a co. in s.w. part of North Carolina, bordering at the s. on South Carolina, and w. on Catawba river; 650 sq.m.; pop. '70, 24,299, since considerably increased. The surface is hilly, and there are large forests, but a great part of the soil is productive—cotton, grass, and Indian corn being the staples. Granite and gold are found; the amount of the latter obtained in a year, according to the census of 1870, is over \$60,000. At Charlotte, situated almost exactly in the center of the county, several important railroads form a junction. These are the Atlanta and Charlotte (part of the Piedmont air line), Charlotte, Columbia and Augusta, Atlantic, Tennessee and Ohio, and the North Carolina railroads. At the outbreak of the war of independence, the inhabitants of this region distinguished themselves for their ardent patriotism, and as being the first community in the country formally to renounce allegiance to the British crown, which they did in May, 1775.

MECKLENBURG, a co. in s. central Virginia, bounded on the s. by North Carolina; drained by the Meherrin river, which forms its n. boundary, and also by the Roanoke; 650 sq.m.; pop. '80, 24,611. The surface is rolling and broken, but remarkably fertile. The chief products are tobacco, Indian corn, and wheat. Of tobacco there were over 2,000,000 lbs. raised in 1870. Granite quarries are found in the district. It is intersected by the Roanoke Valley railroad. Capital, Boydton.

MECKLENBURG DECLARATION OF INDEPENDENCE. This is a document sufficiently near in tenor to the declaration of the continental congress to warrant the people of North Carolina in claiming priority of action; but that action was by only one colony, in deed, by the citizens of one county—the other by all the colonies in perfect harmony. The statement generally accepted in the state is that at a public meeting in Charlotte, Mecklenburg co., held May 20, 1775, a series of resolutions was adopted, and a copy is produced. Other accounts date the meeting May 31. The tenor of the resolutions is in harmony with the declaration of July 4, 1776; but that must have been true of all public declarations of the people then in rebellion.

MECOSTA, a co. in w. Michigan, intersected by the Grand Rapids and Indiana railroad, and a branch of the Chicago and West Michigan, terminating at Big Rapids; 576 sq.m.; pop. '80, 13,973—10,479 of American birth, 317 colored. It is drained by the Muskegon and Chippewa rivers. Its surface is generally level, and extensively covered with forests of oak and pine, furnishing good building timber, with groves of sugar maple. Its soil is fertile and well adapted to wheat, other kinds of grain, and dairy products. Some attention is paid to the raising of stock. The Muskegon river supplies extensive water-power, and its leading industries are the manufacture of lumber, shingles, furniture, etc. Co. seat, Big Rapids.

MEDARY, SAMUEL, 1801–64; b. Penn.; received only a common-school education, and became a printer. He entered into politics, and sustained gen. Jackson; and for many years edited the *Ohio Statesman*. From 1857 to 1860, he was governor of the territories of Minnesota and Kansas, in each case for two years. He had previously been offered the position of minister to Chili, which he refused. He established the *Columbus Crisis*, at Columbus, O., and continued to conduct and edit it until his death. In 1869 his many personal and political friends erected a costly and beautiful monument to his memory.

MEDE, or MEADE, JOSEPH, 1586–1638; b. Berden, Essex, Eng. While a boy at school at Wetherfield he accidentally, on a visit to London, picked up a copy of Bellar-

mine's Hebrew grammar, and soon acquired a good knowledge of the language. He graduated at Christ church, Cambridge, in 1610. His learning at this time is spoken of as extraordinary. His first work was *De Sanctitate Relativa*, addressed to bishop Andrews who requested him to become his domestic chaplain. Declining this he was soon afterward made a fellow of his college, and reader of the Greek lectures on Sir Walter Mildmay's foundation, which office he occupied till his death. In 1618 he took his degree of B.D. The provostship of Trinity college, Dublin, offered him twice, in 1627 and 1630, through the influence of archbishop Usher, he declined, preferring the retirement of college for study. He was distinguished for meekness, modesty, and liberality, devoting the tenth of his small income to charitable and pious purposes. His learning was various and profound. He was well acquainted with mathematics, medicine, the various branches of natural science, history, antiquities, and the literature and sciences of the East. His chief work was *Clavis Apocalyptica*, translated into English in 1643, the first rational attempt, according to bishop Hurd, to interpret the apocalypse. His complete works were collected after his death in one folio volume by Dr. Worthington, with a life of the author.

MEDEOLA. See INDIAN CUCUMBER.

MEDFORD, a t. in Massachusetts, on the Mystic river at the head of navigation and near the Mystic pond, which forms a part of its boundary and supplies water to certain sections of Boston; pop. '80, 7,573. It is 4 m., n.w. of Boston, on the Boston and Maine, and Boston, Lowell, and Nashua railroads, and is the seat of Tufts college (Universalist). It has a public library, a savings bank, 2 newspapers, a reading room; excellent public schools, 7 churches, and a town house. It has many beautiful residences occupied by men of business in the city of Boston, and has delightful drives and lovely scenery. The celebrated Medford rum is manufactured here, and it has manufactories of tin ware, harness, leather, crackers, woolen goods, cotton cloths, buttons, carpets, oil, silk, boots and shoes, and bricks. In former times it numbered ship-building among its industries.

MEDHURST, WALTER HENRY, an English missionary; 1796-1857; b. London; educated for the ministry, and, by appointment of the London missionary society in 1816, labored successfully in India, Malacca, and other Asiatic countries, and afterwards settled in Batavia, Java, where he remained eight years, performing missionary work also in Borneo. In 1845 he was sent to China, and settled at Shanghai. He had charge of the printing establishment, which before this had been worked at Batavia, but he now removed it to Shanghai, and began to print sermons and tracts. For six years he performed mission work in the interior of China amid much peril. He was much opposed by the Romanists in the year 1847, yet 34,000 copies of various works were printed, and 500 tracts were weekly distributed. During this year delegates from several stations convened in Shanghai for the revision of the New Testament. In this work he was engaged till 1850, when he devoted his time to the Old Testament. In 1856 he returned to England in impaired health, and died three days after his arrival. He was a faithful missionary, and a distinguished oriental scholar. He was well versed in the Chinese, Japanese, Javanese, and other languages, besides Dutch and French, in all of which he wrote. His special works are: *China, its State and Prospects, with Especial Reference to the Diffusion of the Gospel*; *Dissertation on the Theology of the Chinese*; *The Chinese Version of the Scriptures*; *A Chinese Dictionary*; *A Japanese and English Vocabulary*; *Dictionary of the Hokkien Dialect*; *Translation of a Comparative Vocabulary of the Language of China, Corea, and Japan*; *Notes on Chinese Grammar*; *Chinese Dialogues*. He was engaged also on the following works: *Chinese Repository*, 20 vols.; *Chinese Miscellanies*, 3 vols. He published also an *Account of the Malayan Archipelago*, and *A Glance at the Interior of China*.

MEDICAL DEPARTMENT IN THE U.S. ARMY AND NAVY. See UNITED STATES ARMY; UNITED STATES NAVY.

MEDICAL JURISPRUDENCE. See JURISPRUDENCE, MEDICAL.

MEDICI, CATHARINE DE'. See CATHARINE DE' MEDICI, *ante*.

MEDICI, MARIE DE'. See MARIE DE' MEDICI, *ante*.

MEDILL, JOSEPH, b. New Brunswick, 1823; while still quite young, removed to Massillon, O., studied law, and began his experience as a journalist in 1849, when he established a free-soil paper at Coshocton, O. In 1852 he was in Cleveland, where he founded the *Forest City*, a whig paper; and in 1854 was among those who organized the new republican party in Ohio. In 1855, in company with two partners, he bought the *Chicago Tribune*; and in 1874, after his return from a tour in Europe, he purchased a controlling interest in the paper and became editor-in-chief, a position which he continues to retain (1881). In 1870 Mr. Medill was a member of the Illinois constitutional convention; in 1871 he was appointed a member of the U. S. civil service commission; and in the latter year he was elected mayor of Chicago.

MEDINA, a co. in n.e. Ohio. It is traversed by Black and Rocky rivers and Chipewewa creek, and by the Atlantic and Great Western, and the Cleveland and Wheeling railroads; 425 sq.m.; pop. '80, 21,454-17,844 of American birth. The soil is undulating

and shows much clay. All the common agricultural productions are staples, and coal is found in the region. There are manufactories of harnesses, lumber, and cheese.

MEDINA, a co. in s.w. Texas; 1175 sq.m.; pop. '80, 4,492—3,463 of American birth. The county, bounded on the n.e. by Medina river, is drained also by Rio Hondo and Seco creek. It is not particularly productive, water and timber being scarce. Stock-raising is the chief industry, and in 1870 there were over 40,000 head of cattle. Chief town, Castroville.

MEDIOLA'NUM, the ancient capital of Gallia Cisalpina, now Milan. It lay along a little stream, whose modern name is the Olona, on a plain between the rivers Ticinus, now the Ticino, and Addua, now the Adda. It was said to have been founded by the Insubres, whose capital city it was, and who named it after a village in Transalpine Gaul, whence they had emigrated. It is first heard of in the time of the Gallic wars, but was of little importance, till, with the Insubres, it submitted to the Romans, 190 B.C. Its situation in the center of the plain of n. Italy made it a favorite place of residence, and by the time of Strabo it had gained some consequence. Its most prosperous period was in the 4th c., in the early part of which the emperor Maximian selected it for his residence. It was adorned with elegant public buildings, temples, theaters, baths, a mint, and in the latter part of the same century Ansonius ranks it as sixth among the cities of the empire. It was the headquarters of the Romans in their campaigns against the barbarians. Its prosperity continued till Honorius, in 403, withdrew to Ravenna, at the time of the Visigothic invasion under Alaric. It was sacked by Attila, but the Gothic kings re-established it as the imperial capital about 476. It was captured soon after by Belisarius, but in 539 it was recaptured by the Goths and Burgundians, and burned; and 300,000 of its inhabitants are said (almost incredibly) to have been massacred on this occasion. In the middle ages it became a great commercial city. See **MILAN**, *ante*.

MEDJIDIEH, a t. in European Turkey, called by the name of the sultan Abdul Medjid, and now the principal place in the Dobrudja. It was of little importance till after the Crimean war, when a large number of Tartars immigrated to Kustendji, 23 m. distant, and worked upon the railroad between the Danube and Kustendji. These and other Tartar immigrants afterwards settled at Medjidieh, and by 1862, the number of Tartar immigrants alone was estimated at 40,000. There are no trustworthy means for forming an estimate of its present size, but it has probably largely decreased.

MEDLEY, JOHN, D.D.; b. England, 1804; educated at Oxford university, where he took the degree of B.A. with high honors at Wadham college in 1826, and the degree of M.A. in 1830. After taking orders in the church of England, he obtained, and for some years held, a living at Exeter, and was soon after made precentor of the cathedral in that town. In 1845 he was made bishop of the newly formed diocese of New Brunswick and was the first to hold that position.

MÉDOC. See **FRENCH WINES**.

MEDOWS, SIR WILLIAM, 17381-813; b. in England; in 1756 entered the British army, in which he served for many years; first in Germany, then in the war with the American colonies, where he commanded the 55th regt., but was soon placed at the head of the 1st brigade of grenadiers and distinguished himself by his bravery at the battles of the Brandywine and St. Lucie. He afterward resided in India from 1781 to 1793; where he occupied several posts of responsibility, and was governor of Madrid from 1790 to 1792. His military renown was greatly increased by gallant conduct at the siege of Seringapatam and the rank of lieut.gen. was conferred upon him. After his return to England he for some time was governor of the Isle of Wight, and afterward succeeded Cornwallis as commander-in-chief in Ireland, (1801-03).

MEDULLA SPINALIS. See **SPINAL CORD**, *ante*.

MEDUSA. See **GORGO.** or **GORGON**, *ante*.

MEDWAY, a t. in Norfolk co., Mass., on the Charles river, and the Woonsocket division of the New York and New England railroad; pop. 3,721. It has 6 churches, 8 schools, 4 public halls, a library, a savings bank, 2 weekly newspapers, and manufactures of boots and shoes, brick, cotton and woolen goods, leather, organs, bells, etc.

MEEK, ALEXANDER BEAUFORT, 1814-65; b. S. C.; was a graduate of the university of Alabama; and having studied law, was admitted to practice at the bar of the state in 1835. At this time he interested himself in politics, and edited a democratic paper called the *Flag of the Union*. He served as a lieut. of volunteers in the war against the Seminoles in 1836. He was afterwards attorney-general of the state, and in 1839 edited a literary monthly at Tuscaloosa called the *Southeron*. He was made county judge in 1842; in 1845 became a clerk in the office of the solicitor of the treasury in Washington; was U. S. district attorney for the southern district of Alabama 1846-50; and in 1853 was a member of the state legislature, having been also for 5 years associate editor of the *Mobile Daily Register*. In the legislature judge Meek distinguished himself by organizing and establishing the free-school system in Alabama. He was judge of probate in Mobile county in 1854; and in 1859 was again in the legislature, and held the office of speaker. He wrote and published several volumes of poems, sketches and other fugitive efforts, besides having compiled a history of Alabama. He was an enthusiastic

and very able chess-player, and was one of the foremost contestants in the first chess tournament, held in New York in 1857, when he met on equal terms such players as Morphy, Paulsen, Marasche, Fiske, Thompson, etc.

MEEKER, a co. in central Minnesota, drained by the North Fork of the Crow river, on the St. Paul and Pacific railroad; 560 sq. m.; pop. '80, 11,739—7,567 of American birth. The surface is diversified, and much of it heavily wooded with maple, elm, ash, and oak. The soil is fertile and produces large crops of wheat, oats, and Indian corn. There are a number of saw and flouring mills. County seat, Litchfield.

MEEKER, JOSEPH RUSLING, b. Newark, N. J., Apr. 27, 1827; educated at common schools in Cayuga county, N. Y. Early showed a taste for painting. After 3 years' study in New York, 1845-48, he went to Buffalo, opened a studio, and was an associate there with W. H. Beard and Thomas Le Clear, also artists. From 1852 to 1859 he worked at Louisville with moderate success, and in 1859 went to St. Louis. On the breaking out of the rebellion he joined the navy service as paymaster. While on a gun-boat on the lower Mississippi river he first saw those weird swamp and lowland forest scenes from the sketches of which he has since made numerous paintings in a field all his own, with felicitous rendering of the dreamy languor in the hazy air of cypress swamps, and moss-draped groves of oak. At the close of the war he was one of the founders of the St. Louis art society, and thrice its president; also an active member of the St. Louis academy of fine arts. He is the writer of an article on Turner in the *Western Magazine* (Dec., 1877), St. Louis.

MEERMAN, GERARD, Baron, 1722-71, b. Holland; studied jurisprudence at Leyden, and soon acquired a reputation as a learned law writer. He held but two public offices, that of pensionary of Holland, to which he was nominated in 1748; and of envoy to England, whither he was sent in 1757. The rest of his life was spent in researches on law or the art of printing. On the latter subject he wrote his *Origines Typographicæ*, 1765, wherein he claimed for his countryman Lawrence Koster the honor of the invention of printing. His great legal work is the *Novus Thesaurus Juris Civilis et Canonici*, which appeared from 1751 to 1754, in 7 volumes.

MEETING, is the name applied by the society of Friends to their various assemblies for worship and for the management of official business. 1. To their usual gatherings on several days of the week for worship, meditation and instruction. 2. The monthly meeting is an assembly of members from several contiguous congregations, charged with making provision for the poor and for the education of children; with the admission of persons desirous of joining the society; with giving attention to the proper performance of religious and moral duties among Friends; and with the administration of needed discipline. In this last duty is included the appointment of committees to see that the rules are observed and to settle difficulties among members by private admonition and counsel so as if possible to prevent their being brought before the meeting. And even when cases are introduced to the meeting similar committees are appointed to settle them informally if possible. In all disputes the practice of the society is to refrain from going to law. It therefore directs all its members to harmonize their differences by prompt and impartial arbitration. To the monthly meeting belongs the allowing and solemnizing of marriages. It keeps a record of marriages, births, and deaths among its members. 3. The quarterly meeting is composed of several monthly meetings. It receives answers from the monthly meetings to questions it had sent to them concerning the conduct of their members and of the care taken of them. The statements thus received are condensed into a report, also expressed in answer to inquiries previously received, sent by representatives to the yearly meeting. The quarterly meeting receives appeals from the judgment of monthly meetings and has supervision over their neglect of discipline and care. 4. The yearly meeting has the general superintendence of the society in the country in which it is established; and therefore as the accounts which it receives discover the state of inferior meetings, as particular exigencies require, or as the meeting is impressed with a sense of duty, it gives forth its advice, makes such regulations as appear to be requisite, or excites to the observance of those already made, and sometimes appoints committees to visit those quarterly meetings which appear to be in need of immediate advice. At the yearly meeting a sub-committee called the morning meeting is appointed to revise the official manuscripts prior to their publication and also to grant in the intervals of the yearly meeting certificates of approval to those ministers who "have a concern" to travel in the work of the ministry in foreign parts in addition to those granted by their monthly and quarterly meetings. Appeals from the quarterly meetings are heard by the yearly meetings. There are 10 such: in London, Dublin, New England, New York, Pennsylvania, Maryland, Virginia, the Carolinas, Ohio, and Indiana.—The QUARTERLY MEETING in the Methodist church is a general meeting, of the stewards, leaders, and other officers, for the purpose of transacting the general business of the "circuit" or "district." In the Methodist Episcopal church it is presided over by the "presiding elder," or by the minister in charge. Its special object, in addition to celebrating the love-feast, is to examine the spiritual and financial condition of the church.

MEGACEROPS, an extinct genus of animals found in the miocene formation of Colorado by prof. O. C. Marsh of Yale college. They belong, with other genera, *titano-*

therium, *diconodon*, and *brontotherium*, to the family Brontotheridæ of Marsh, which have four nearly equal toes in the fore feet, and three in the hind feet, as in the tapirs. In size and conformation of skeleton they resemble the elephants, but they had shorter limbs and probably no proboscis, but a tapir-like nose. Skull elongated, brain cavity very small, the cerebral hemispheres scarcely covering the olfactory lobes. A pair of horn cores is placed transversely upon the maxillary bones in both sexes. They belong to that section of the order of ungulates called *perissodactyls*, (q. v.).

MEGACEROS HIBERNICUS, or great-horned Irish elk, an extinct species of gigantic deer whose bones are found in the quaternary deposits of marl in the peat swamps of Ireland, and also of England, as well as in bone caverns. The largest were 11 ft. in height to the tips of the antlers, which were 12 ft. across. The females had no antlers. The bones were proportionately stronger than in living species, and the cervical vertebrae of the males were very heavy for the purpose of carrying the massive horns. The dentition was of the ordinary ruminant type. They are regarded as intermediate between the reindeer and fallow-deer, and their fossils are exclusively post-tertiary, but not extending to the historic period.

MEGADACTYLUS, a name given by prof. Edward Hitchcock to an extinct genus of bird-like reptiles whose fossils are found in mesozoic formations of the Connecticut valley. The leg bones of one of these were slender and hollow, and the walls thin and dense, as in birds. Its tracks were for a long time, with others in the same locality, regarded as those of birds.

MEGADERMA. See **BAT**, *ante*.

MEGALONYX. See **MEGATHERIUM**, *ante*.

MEGALOPOLIS, the later capital of Arcadia, in the Peloponnesus, was situated on the river Helisson, in the center of a spacious plain on the n.w. border of Arcadia. It is said to have been founded in 370 B.C.; being suggested by Epaminondas, after the battle of Leuctra and designed to become the capital and stronghold of the Arcadian confederation against Sparta. It occupied three years in building, and was then settled by drawing upon the population of 40 different towns. The number of inhabitants was insignificant in comparison to the size of the city, and the latter never rose to the height of importance that was anticipated for it. The Theban supremacy being overthrown, it was forced to ally itself to Macedonia, in order to strengthen itself against Sparta. In 222 B.C., the Spartan king, Cleomenes III. surprised the city, and a large number of its magnificent buildings were destroyed. Some of its inhabitants were put to the sword, and the remainder fled to Messene. Later on the fugitives returned and rebuilt their city, which, however, never after recovered its former importance. Megalopolis was the birthplace of the celebrated Greek gen. Philopœmen, who fought bravely in defense of the city against the Spartan king Cleomenes. Polybius, the Greek historian, was also a native of Megalopolis, his father being the head of the Achæan league after the death of Philopœmen. A statue in honor of Polybius was erected in his native city during his life.

MEGANTIC, a co. in Canada, Province of Quebec, intersected in the w. by the Grand Trunk railway; 745 sq. m.; pop. 18,878. Its surface is undulating and drained by lake St. Francis, lake Inverness, lake Joseph, and lake William, the Becancour river, and the River du Chene. Its mineral products are iron and copper, which are found in abundance. It has tanneries, grist and saw mill; and fulling mills. County seat, Leeds village.

MEGAPHONE, a combination of the speaking-trumpet and ear-trumpet, devised by Mr. Edison. It consists of two large funnels, each about 7 ft. long and 3½ ft. across the mouth, and connected at the smaller end with a flexible tube having a tip suitable to apply to the ear. Slight sounds may be heard at a distance of over 1000 feet. By the use of a large speaking-trumpet a conversation may be carried on between two stations two miles apart.

MEGARA (**MEGARIS**, *ante*) was about 20 m. n.w. from Athens and built at the base of two hills, Caria and Alcathous, each defended by a citadel. Two walls, built by the Athenians during their protectorate over Megara, between 461 and 445 B.C., ran down from the city to its harbor, Nisæa. In the time of Pausanias, the Megarian capital had many temples and public buildings, of which only the most scanty ruins have been preserved. According to its local legends, the city was named for its founder, Megarus, a Bœotian, son of Apollo. Its walls, which were razed by Minos, were said to have been rebuilt by Alcathous, the son of Pelops. Hyperion, son of Agamemnon, is represented as the last king, after whose death the government became republican. In historic times the city seems to have been under the power of the Athenians, from whom it was wrested by Dorians from the Peloponnesus. It was now colonized by Messenians and Corinthians, and adopted Dorian institutions. At a time not definitely known it ceased to be subject to Corinth, and as an independent state rose to a high degree of power. It sent out many colonies, of which the most famous were Byzantium, Chalcedon, and the Sicilian Megara. It rivaled Athens as a naval power, and for a long time kept possession of Salamis, in spite of the continued efforts of the Athenians to recapture it. The government had originally been in the hands of the Dorian landed aristocracy,

from whom it was usurped about 620 B.C. by Theagenes, who led the popular faction, and established himself as absolute ruler of the state. Upon his expulsion, soon after, a fierce contest took place between the democratic and aristocratic parties, of which Theognis, a bitter partisan of the latter, has given an account in his poems. After the Persian wars, Megara carried on hostilities with Corinth, against which she formed an alliance with Athens 461 B.C. But in 455 the Megarians repudiated the Athenian alliance, and put to death the Athenian garrison which had been stationed at Megara. In the seventh year of the Peloponnesian war the democratic party in Megara, fearing that the aristocratic faction would take advantage of the Lacedæmonian alliance to re-establish an oligarchy, resolved to surrender the city to the Athenians. An Athenian army captured Nisæa, but the arrival of Brasidas with a force of Lacedæmonians prevented the surrender of Megara. From this time Megara is but little heard of in history. A democratic form of government was re-established in 357; after the death of Alexander the great, the city passed into the control of Demetrius Poliocertes and Ptolemy Soter successively. Demetrius, the son of Antigonos Gonabas, captured and nearly destroyed it. It was afterwards partially rebuilt, and finally surrendered to the Romans under Metellus. Alone among the cities of Greece it was not restored by Hadrian; Alaric still further reduced it, and in 1687 the Venetians completely destroyed it.

MEGASTHENES (Gr., great strength), a name given by prof. J. D. Dana to a grand division of the higher mammals of a superior and powerful type. It includes the quadremana, carnivora, herbivora, and cetaceans. He has given the name *microsthenes* to inferior mammals, as the bats, insectivora, rodents, and edentates. There is a parallelism between these two divisions, the bats in the latter representing the monkeys in the former; the insectivora the carnivora; the rodents the herbivora, and the edentates the cetaceans. The marsupials and monotremes form a lower, or semi-oviparous division, while man forms the highest division, the archonts.

MEGASTHENES, a Greek writer in the time of Seleucus Nicator, about 300 B.C. Seleucus sent him on a diplomatic mission to Sandrocottus, king of the Prasii, a people in India. There he spent a number of years, and on his return to Syria, gave a general historical and geographical account of India, including the first description of Ceylon. His work is known only in such fragments of it as are quoted by Strabo, Arrian, and Elian. The former did not set a high estimate on the accuracy of Megasthenes. It is certain, however, that the works include much information in regard to the geography and social condition of Indian peoples previously entirely unknown to the Greeks.

MEGATHERIIDÆ, a family of extinct mammals of the order Edentata, named by prof. Owen, and containing several genera. Pictet gave it the name *gravigrades*, placing it between the sloths and the armadilloes. There are nine or more genera, 1 megatherium, 2 cœlodon, 3 lestodon, 4 megalonyx, 5 mylodon, 6 scelidotherium, 7 sphærodon, 8 megalocnus, 9 myomorphus. See MEGATHERIUM, *ante*.

MEGERLE, ULRICH VON. See ABRAHAM A. SANCTA CLARA, *ante*.

MAHÁDIA, the ancient Thurmæ Hercules, a t. of Hungary, 6 m. w. of Roumania. 15 m. n. of Orsova; pop. 1800. Since the time of the Romans it has been noted for its baths. The sulphurous springs are beneficial in gout and other diseases. They are annually frequented by many visitors.

MEHUL, ÉTIENNE HENRI, 1763-1817; b. at Givet, France. At the age of 10 he was organist of his native village and was soon after destined for the church. The advent of a regiment and martial music fired his worldliness, and he found means to reach Paris. There, after fighting the unexpected misery of cold and hunger, at the age of 17 he attracted the sympathy of Glück, the composer. After several unsuccessful efforts his *Euphrosine et Coradin* achieved fame in 1790, and other compositions previously written were then brought to light. *Stratonice* appeared in 1792; and this was followed by patriotic national hymns for the army of the republic, entitled *Le Chant du Départ*; *Le Chant de Victoire*; *Le Chant du Retour*, which won him high popularity. Other works appeared in rapid succession: in 1803 *Uthal*; afterwards *Une Folie, ou les Aveugle de Tolède*; and in 1817 *Joseph*, his most esteemed composition. Died in Paris.

MEIGGS, HENRY, 1811-77; b. N.Y.; was in New York, engaged in the lumber business, in 1835, and failed in the commercial crisis of 1837. He, however, made another effort in the same business in Williamsburg, L. I., was for a time successful, and was elected president of the board of trustees of the town; but in 1842 he again failed, and it was not until the outbreak of the gold excitement in California that he again became seemingly prosperous. He shipped lumber in large quantities to the Pacific coast; and his trade so increased that he was encouraged to build a large number of vessels, until, at length, a financial stringency in the San Francisco money market drove him to borrowing, and eventually his business collapsed, and he fled to South America. He settled in Chili, and entered into the business of a contractor for building bridges, and, by one of his contracts with the government of Chili, made a profit of \$1,300,000. He afterwards devoted himself to railroad construction, and in Peru accomplished engineering works which are objects of general admiration. He made contracts for the construction of six railroads in that country, one of which, the Callao, Lima and Oroya railroad, ranks among the first public works of the kind in the world. It is recorded to the honor of

Mr. Meiggs that, having by his industry and enterprise succeeded in greatly improving his impaired fortune, he returned to San Francisco and arranged to discharge all the obligations which were in existence there against him. He was a man of refined tastes; greatly interested in art, in which he was a connoisseur; and at the time of his residence in New York city was president of a prominent musical association.

MEIGS, a co. in s.e. Ohio; drained by branches of the Ohio river, which separates it on the s. and s.e. from West Virginia; 490 sq.m.; pop. '80, 32,235—2,273 of foreign birth. The surface is uneven and in large part covered by forests of valuable timber; wheat, hay, corn, and oats are staples. Bituminous coal, salt, and limestone are found; in 1870 over 200,000 tons of coal were mined. Chief town, Pomeroy.

MEIGS, a co. in e. Tennessee; drained by creeks emptying into the Tennessee and Hiawassee rivers, which bound it on the n.w. and s.; the East Tennessee, Virginia and Georgia railroad runs near the s.e. boundary; 225 sq.m.; pop. '80, 7,117—810 colored. The Blue Ridge mountains cover much of the surface, and the hill-slopes and bottom-land is well fitted for raising corn. The climate is very invigorating. County seat, Decatur.

MEIGS, BENJAMIN C., 1789-1862; b. Conn.; graduated at Yale college in 1809; at Andover theological seminary in 1812; was ordained in 1815; sailed as a missionary of the American board; reached Ceylon in 1816. He was stationed for many years at Tillypally. Returning for the second time to America in 1858, on account of ill health, he died in New York. He was a man of kind, conciliatory spirit, sagacious in judgment, and greatly esteemed by the natives as well as by his missionary associates.

MEIGS, CHARLES DELUCENA, 1792-1869; b. at St. Georges in the Bermuda islands; educated as a physician, taking degrees from both the university of Pennsylvania and the college at Princeton (1818). In 1820 he began practice in Philadelphia and was chosen a professor in the Jefferson medical college in 1840, a position which he held for 22 years. He was specially skillful in obstetrics and the diseases of women and children, to which he devoted most of his time. He published several treatises on these and kindred subjects, and also, in 1852, a memoir of Samuel G. Morton, M.D.

MEIGS, JAMES AITKEN, b. Philadelphia, 1829; received a medical degree from the Jefferson medical college, and in 1857 was appointed to the professorship of the institutes of medicine in the medical college at Philadelphia. In 1859 he was called to a similar position in the Pennsylvania medical college, whence he removed in 1868 to become a professor in the Jefferson medical school. Besides a number of scientific papers, he has published an edition of Kirke's *Manual of Physiology*.

MEIGS, MONTGOMERY CUNNINGHAM, b. Ga. 1816; received his education at the university of Pennsylvania and the U. S. military academy, graduating at West Point, July, 1836, and receiving the appointment of second lieut. in the artillery. In the following year he was exchanged into the corps of engineers, in which corps he became first lieut. in 1838 and capt. in 1853. During the period between his graduating and the year 1852 he was employed in various important engineering undertakings on the part of the war department, including the building of fort Delaware and the Delaware breakwater, improvements of the Delaware bay and river, the construction of fort Wayne, Mich., and forts Porter and Niagara, N. Y., and fort Montgomery, N. Y. In 1852 and for 8 years thereafter he was employed in superintending the Washington and Georgetown water-works, a magnificent engineering enterprise, by means of which those cities were supplied with water from the Potomac river by means of the Washington aqueduct. During this period he also superintended the erection of the capitol extension in Washington and the post-office extension, as well as the great iron dome of the capitol. In the early part of the winter of 1860 he was dispatched to forts Jefferson and Taylor, in Florida, with orders to place them in a position for defense, and in the following spring was made chief engineer of the fort Pickens relief expedition. On May 14, 1861, he was appointed col. 11th infantry; and May 15 quartermaster-gen. of the U. S. army, with the rank of brig.gen. In this important position gen. Meigs had the direction of the supply and equipment of the United States forces in the field during the continuance of the war. He was frequently obliged to make personal inspection of the quartermaster's department of the various armies during siege and field operations, this being particularly the case at Chattanooga in 1863 and during the battles of the Wilderness in 1864. On July 5, 1864, he was brevetted maj.gen. In Jan., 1865, he superintended the refitting of the army of gen. Sherman after its return from the march to the sea. In 1867 and '68 he made an inspection of the departments of the west and the Pacific coast; and in 1875 was sent to Europe on a special mission of examination of the staff department of the European armies.

MEIGS, RETURN JONATHAN, 1740-1823; b. at Middletown, Conn.; he was engaged in the attempt on Quebec under Arnold, holding the rank of maj., and was there taken prisoner. After his exchange in 1776 he became col. of a regiment raised in the following year by his own exertions, and served with great credit in the actions of Sag Harbor and Stony Point. He was naturally of an enterprising and restless spirit and was one of the first emigrants to that part of Ohio known as the Connecticut Reserve; settling at Marietta in 1788. He was commissary-gen. under Wayne in the Indian campaigns, and

in 1801 was made an Indian agent by the government. It was while employed in this capacity at the Cherokee agency in Georgia that his death took place. In 1776 col. Meigs published in the *American Remembrancer* an account of the Quebec expedition, which has been reprinted (N. Y., 1864).

MEIGS, RETURN JONATHAN, Jr., 1765-1825; b. Middletown, Conn.; graduated at Yale in 1785; went with his father to Marietta, O., in 1788, and entered upon the profession of the law. He was chief-justice of the supreme court of Ohio in 1803-4; brevet col. of the U. S. army, serving in Louisiana 1804-6; a judge in Louisiana 1805-6; and U. S. district judge in Michigan 1807-8. He was U. S. senator from Ohio 1808-10; governor of that state 1810-14, and U. S. postmaster-general 1814-23. Died at Marietta.

MEINERS, CHRISTOPH, 1747-1810; b. Ottendorf, Hanover. Little is known of his early life. He was educated at the university of Göttingen, where he was appointed professor of philosophy, and afterwards rector. Of his numerous historical works the following are the most important: *Revision der Philosophie; Versuch einer Religionsgeschichte der ältesten Völker besonders Ägyptens; Historia Doctrinæ de Vero Deo; Geschichte des Verfalls der Sitten und Staatsverfassung der Römer*. Besides his own works, he edited in connection with J. G. Feder *Philosophische Bibliothek*, 4 vols.; and with Spittler *Göttingisches Historisches Magazin; Neues Magazin*, 3 vols. Most of his works were designed to show the difference between past and present morals.

MEISSNER, AUGUSTUS GOTTLIEB, 1753-1807, b. Silesia; educated at Wittemberg and Leipsic, where he studied law. He was for a time a chancery clerk, and curator of the Dresden archives. In 1785 he was appointed to the chair of classical literature and æsthetics in the university of Prague; and for the last two years of his life he was director of the Fulda high school. He translated a number of dramatic pieces from Molière, and Destouches, and was himself the author of three fairly successful operas; *The Mufti's Grave; The Alchemist; and The Beautiful Arsene*. But his most popular work is his *Sketches*, 14 series of which were published between 1778 and 1796. They are a collection of miscellaneous stories, dialogues, anecdotes, and essays. These pieces were extensively translated and imitated in other languages, and a few of them were included by Thompson in his *German Miscellany*. Of a similar plan and character are the *Tales and Dialogues*, which appeared from 1781-89. Besides these smaller works Meissner wrote a number of romances, and historical novels of considerable length, such as *Alcibiades; Masaniello; Bianca Capello; and Spartacus*.

MEISSONIER, JEAN LOUIS ERNEST, b. Lyons, in 1811, of a poor family. At the age of 19, after a youth of little opportunity for improvement, and many hardships, he found his way to Paris to study painting, which he had already practiced in Lyons on works for which he and Daubigny received 5 francs a square yard—paintings made for exportation. He was soon admitted to the studio of Leon Cogniet, where his disposition to make small paintings of exquisite precision, and his neatness of touch in giving high relief to small figures, soon made him the leader of a distinct school. His first public exhibitions were in 1836, the "Chessplayers," and the "Little Messenger." From that time he has had a continually increasing reputation, and his industry and care in the exquisite finish of his almost microscopic details has been maintained without sacrifice of the general effects. Théophile Gautier says of him: "He is original. What he has wished to do, he has done completely, in design, color, fineness of touch, and result." The smallest inanimate objects acquire a peculiar life and meaning under his touch, and when he has finished a painting it seems beyond the suggestion of improvement. Meissonier has won all the honors of his art in the salons and exhibitions of Paris, and is rich with the proceeds of his labor. His works are too numerous to name. One of his best, "A Charge of Cavalry," is in the possession of Mr. Probasco of Cincinnati, for which he paid \$30,000. Meissonier has also succeeded in portraits, though not so remarkably as in his characteristic work.

MEJERDA RIVER, in n.e. Africa, flowing through Algeria and Tunis. It rises in the Great Atlas range and is formed by the juncture of several small streams; its course is n. and n.e., and it empties into the gulf of Tunis, about 24 m. n. of the city of Tunis. The extent of the whole course is about 200 miles. In ancient times it was known as the Bagradas, and Carthage was not far from its banks; but its course has since been greatly changed, and it now flows near the ruins of Utica.

MEJIA, IGNACIO, b. Mexico, 1814; received his education at the institute of arts and sciences of Oaxaca. In 1829 he volunteered for the defense of his country against a Spanish invasion, and in 1833 was made capt. of grenadiers, and col. in 1846. He was military commander and provisional governor of the state of Tehuantepec in 1852, and during the "war of reform" was prominent on the side of the liberals. In 1858 he was in command of a brigade, and fought the battles of Teotitlan and Pachuca; being defeated in the first of these, Oct. 20, 1861. He acted as quartermaster of the army which resisted the invasion of the French in 1861, and was engaged in the defense of Puebla in 1862, being taken prisoner when that stronghold capitulated in May, 1863. He was sent to France, and not released until the summer of 1864, when he returned to Mexico, and in 1865 was appointed a gen. of division, and made minister of war.

MEJIA, THOMAS, 1812-67, b. Mexico; a native Indian, who exercised great power over the Indian tribes in Mexico, and took a prominent part in Mexican affairs. He served with distinction through the war with this country in 1846-48. He quelled an insurrection in 1849, but six years later put himself at the head of one for the purpose of overthrowing gen. Comonfort. This movement was unsuccessful, as was a coalition which he organized the next year between the clericals and conservatives. In 1857, after several defeats, he was forced to surrender. In 1858 he drove the Juarez government out of Queretaro, and held out successfully against Juarez, till the triumph of the latter in 1860, when he resorted to guerilla warfare. He was a trusted adherent of Maximilian, but was finally captured and put to death.

MEK'HITAR, or MECHITAR. See **MECHITARISTS**, *ante*.

MEKONG, MEIKHONG, MAKIANG, or CAMBODIA, RIVER. See **COCHIN CHINA**, *ante*.

MEKRAN, or MUKRAN, a province of Beloochistan in Asia, lying between 25° and 28° n. lat., and 58° and 68° e. long. It is bounded on the s. by the Indian ocean, w. by Persia, and n. by Afghanistan and Sarawan, being about 500 m. in length and 200 m. broad. It comprises by far the greater part of Beloochistan, about 100,000 sq.m., and is divided into many petty districts, each having its separate chief. The n. part is very rugged, and is traversed from e. to w. by two ranges of mountains, while the lower or s. part is level, barren, and desolate. The inhabitants, of whom there are 200,000 or more, are not advanced in civilization. They practice polygamy and hold slaves. There is very little trade or manufacturing carried on. The vegetation is scanty, the most prolific natural production being the date palm. Fishing is carried on to a very considerable extent, and is the main support of a large part of the people. The country is, as to government and law, in a wretched condition. The route used by Alexander the great on his return from Egypt is still to be seen, and with one exception is the only practicable road for an army between India and Persia.

MELAMPUS, in mythology, the son of Amythæon; his mother is said by different authors to be Aglaia, Rhodope, or Eidomene. He is represented as a physician and prophet, and is said to have acquired his powers of divination in this way: While he was sleeping, one day, before the house of his uncle, king Neleus of Pylos, some serpents which he had tamed licked his ears and wakened him, whereupon he understood the language of the birds, and could read the future. Apollo imparted to him all the secrets of the art of medicine. For his services in curing the Argolian women of madness, Anaxagoras gave him a third of the kingdom of Argos, and another third to his brother Bias. According to other mythologists, Melampus restored to sanity the three daughters of king Proetus of Argos, and was rewarded by their father with the hand of Iphianassa, the eldest, and with a third of the Argive kingdom; by her he had four children, Antiphates, Manto, Bias, and Pronoe. He was accounted by the Greeks the first physician and prophet, and his posterity were also endowed with prophetic gifts. He was worshiped as a god after his death, and a temple was erected in his honor at Ægosthena, in Megaris.

MELANESIA. See **MICRONESIA AND MELANESIA**.

MELANO'SIS. See **TUMORS**, *ante*.

MELAZZO. See **MILAZZO**, *ante*.

MELCHIZEDEK, or MELCHISEDEC, said in Genesis to have been "king of Salem and priest of the most high God," met Abraham—on his return from the successful pursuit of Chedorlaomer and his allies which he had undertaken for the rescue of Lot—refreshing him with bread and wine and pronouncing a remarkable blessing on him; after which Abraham gave him tithes of all the spoils, thus acknowledging his official superiority. In Ps. cx. David, in predicting the Messiah, says that by divine decree he was to be "a perpetual priest after the order of Melchisedec." This prediction the epistle to the Hebrews interprets in its application to the Lord Jesus Christ and as connected with the historical narrative, to all of which it ascribes a symbolic character, both in the particulars which it relates and in the silence which as to other things it maintains. As named Melchisedec he represented the king of righteousness, and as being king of Salem the king of peace. As in the narrative he stands alone with no mention of his father, mother, descent, birth, or death, he becomes a striking emblem of the uncreated Son of God and of a perpetual priest. As blessing Abraham and receiving tithes from him his superiority to Abraham and therefore to Levi the priestly son of Abraham was proved. Consequently the priesthood of Christ, which was according to the order of Melchisedec, was designed to supersede the priesthood of Levi and was superior to it, as Levi and his descendants were all under the power of death and would in succession pass away. These three passages of Scripture (in Genesis, the Psalms, and Hebrews,) contain all that is said about him and all that is known. But in all the past centuries mystery has enveloped his name, and various conjectures concerning him have been made. The Jews perceiving his superiority to Abraham as indicated by the blessing bestowed and the tithes paid, explained it by supposing that the kingly priest was Shem, who as a survivor of antediluvian times had a right to be revered as the head of the human race. Jerome testifies that this was the opinion of the Jews in his day, and it was adopted in modern times by Luther, Melancthon, Selden, Lightfoot, and others. Another old notion which

Jerome says Origen cherished was that the royal priest was an angel. A small sect in the 4th c. called after his name taught that he was a power or influence of God greater than Christ. A few others regarded him as the Holy Ghost. Epiphanius says that some in his day believed that he was the Son of God in human form; to this opinion Ambrose seemed inclined and it has been held by many in modern times. Some among the Jews also regarded him as the Messiah. All these conjectures, however, are not only without support, but are with difficulty reconcilable with the Scriptures.

MELCHTHAL, ARNOLD VON, b. Switzerland, late in the 13th century. He was called Melchthal from the village of his birth in the canton of Unterwalden, but his name was Winckelried. Melchthal killed the servant of an Austrian bailiff, who had come to Melchthal to seize the oxen of Melchthal's father, a well-to-do proprietor in Unterwalden. In revenge, the Austrians put out his father's eyes, a tragic incident which is employed by Schiller in his *Wilhelm Tell*. When Melchthal heard of his father's blindness, he met his friends Fürst of the canton of Uri, and Stauffacher of the canton of Schwyz, on the banks of lake Lucerne, and all three took oath to do all in their power to liberate the three cantons from Austrian rule. This was in November, 1307; and the next year the mountaineers of the three cantons successfully opposed the Austrians. Arnold of Melchthal is said to have attempted, at the battle of Sempach, to break a line of Austrian spears, and to have died "gathering into his bosom the sheaf of foreign spears." The whole story of the three patriots of the three cantons, seems to be as much of a myth as the legend of William Tell with which it is connected. It is found in the *Chronicon Helveticum* of Ægidius Tschudi.

MELCOMBE, LORD. See DODINGTON, *ante*.

MELEAGER, a legendary Greek hero, whose name is connected with the Argonautic expedition, and more conspicuously with the hunting of the Calydonian boar. He was the son of Oeneus, king of Ætolia, and Althæa, daughter of Thestius. Upon the seventh day after his birth the three Fates came to the palace of Oeneus, and pointing to a brand burning on the hearth, said that the child should not die till that brand should be spent. Althæa thereupon put water on the brand, and laid it away in a safe place. As Meleager grew to manhood he made a great name in war and in the chase. He went with the other heroes in quest of the golden fleece; and when Artemis, in her wrath, sent a monstrous wild boar to harry Calydon, Meleager was at the head of the hunters. Of this Calydonian hunt two stories are told. One says that Artemis had sent a wild boar into Calydon because Oeneus had not done sacrifice to her at the feast of harvest-home, and that Meleager, with many huntsmen and dogs, gave chase to the boar, which was soon slain. The Curetes and Ætolians wrangled over the boar's hide and head; and war breaking out between them, the Curetes had ever the worst, till Meleager, angered at Althæa, his mother, left the field and shut himself up in his house with Cleopatra, his wife; nor would he be moved by the prayers of his father and mother to go out against the Curetes till they had scaled the towers of Calydon; when his wife succeeded in persuading him to fight against the enemy, whom he repelled. The other and more modern legend represents all the Greek heroes as taking part in the hunt at the invitation of Meleager. Among them were Castor and Pollux, Theseus, Peleus, Jason, and Pirithous. Atalanta, daughter of Jasus, had come from Arcadia to join the hunt, but some of the heroes objected to a woman taking part in it. Their objections were overcome by Meleager, who was in love with her. The hunt began at once; Ancæus and Cepheus were killed by the boar; Peleus killed Eurytion by accident. Then Atalanta gave the boar the first wound, Amphiaraus pierced his eye with an arrow, and the monster was finally killed by Meleager, who gave the head and hide to Atalanta. Meleager's uncles, the sons of Thestius, took the hide away from Atalanta, and were killed by Meleager. Althæa, enraged by the death of her brothers, burned the brand upon which her son's life depended, and Meleager wasted away and died. Althæa took her own life, Cleopatra died of grief, and Meleager's sisters, with the exception of two, were changed into birds called Meleagrides. The later legend is told in Swinburne's *Atalanta in Calydon*.

MELEAGER, a Greek epigrammatist in the 1st c. B.C. He compiled the first known Greek anthology, a collection called *The Garland*, and containing specimens from 46 authors. His anthology has been lost, but 131 of Meleager's own epigrams have been preserved. They are remarkable for their purity of style and grace of versification. The best edition is that published at Leipsic, by Graefe, in 1811.

MELEAGRIDI'Æ. See TURKEY, *ante*.

MELETIUS, SAINT, of Antioch, a famous Greek ecclesiastic; b. in the beginning of the 4th c. at Melitene in Armenia Minor. His first important appointment was to the bishopric of Sebaste on the deposition of Eustathius in A.D. 357, but his position was made so unpleasant by the stubborn conduct of the people that he soon resigned, and retired to Beræa or Aleppo in Syria. The Arian controversy was now engrossing the minds of the people, and extinguishing true piety, but Meletius endeavored by his ministrations in the pulpit and his consistent private life to commend to his people the essential truths of the gospel. He thus won the respect of both factions, and in A.D. 360 was raised by universal consent to the see of Antioch. In his new and high posi-

tion he felt bound to take a decided course in the prevailing dispute, and in his inaugural discourse in 361 he expressed his sympathy with the orthodox party. This confession re-awakened the spirit of controversy in the church of Antioch. The Arians charged him with Sabellianism and other crimes, and in a month he was banished by command of the emperor Constantius to his native Melitene. Euzoius was installed in his place. The orthodox party in the church of Antioch seceded from the communion of the Arians, and on the accession of the emperor Julian in 362 Meletius was recalled from exile. He now strove earnestly for two years to effect a union between the Eustathians and the orthodox party that had separated from the Arians at the time of his banishment, but the Eustathians refused to recognize any bishop who had been consecrated by the Arians. The council of Alexandria sent Lucifer of Cagliari to Antioch to settle the dispute, but he defeated the plan of reconciliation by ordaining Paulinus bishop of the Eustathians. Soon after the accession of Valens in 364 Meletius was again banished. By an edict of Gratian in 378 he was recalled, and reinstated in his bishopric. He again endeavored to effect a union with the Eustathians, but was unsuccessful through the unrelenting prejudice of Paulinus. Meletius died at an advanced age, while in the council of Constantinople in 381. His body was taken to Antioch and buried with great honor beside the tomb of the martyr Babylas. His funeral oration was pronounced by Gregory of Nyssa. A part of the inaugural discourse of Meletius at Antioch is printed in the fifth vol. of Galland's *Bibliotheca Patrum*.

MELETIUS, or MELITIUS; b. in Egypt about 260; was bishop of Lycopolis in Thebais in the beginning of the 4th c., and founder of the sect of the Meletians. During the severe persecution under Diocletian and Maximin, he and Peter, archbishop of Alexandria, were thrown into prison. Many Christians who had been led through torture to renounce their faith, repenting of their sin, repaired to the two bishops to receive absolution, and to be reconciled to the church. Peter was willing to receive the backsliders, on their doing penance, but Meletius refused to have any intercourse with them until the close of the persecution. A majority of the imprisoned Christians approved of his course. This caused a schism, and Meletius became the leader of the disaffected. After obtaining his freedom he traveled through the patriarchate, ordaining and excommunicating according to his own will, obtaining many followers, and disregarding the protests of the Egyptian bishops. This proselyting tour was extended to Palestine. But in 325 the council of Nice checked his career, compelling him to remain at Lycopolis as a mere titular bishop without active jurisdiction. He died soon after this. The Meletians called themselves *the church of the Martyrs*. They afterwards allied themselves with the Arians against Athanasias, continuing, however, a distinct sect until the 5th century.

MELIKOFF, LORIS, MICHAEL TARIELOVITCH, b. Russia, 1826; descended from a wealthy family of the Caucasian nobility. He was educated in the school of the guards of St. Petersburg, and joined the army with the rank of cornet, being promoted to a lieutenancy in 1847. He saw active service in the Caucasus, as adjutant to prince Vorozoff, and gained a reputation for remarkable military talents. Here he led a number of expeditions against the fierce native soldiery, and had even the honor of defeating the celebrated Shamyl. During the Crimean war he had several successful engagements with the enemy in front of Kars, and on the capitulation of that stronghold was appointed its governor. In 1856, at the close of the war, he was made a maj.gen., and in 1863 lieut.gen. He was appointed adj.gen. in 1865, and gen. of cavalry in 1875; and in the following year was placed in command of the corps which was stationed on the Turkish frontier, and, on the declaration of war, marched into the enemy's territory. He besieged Kars and encountered serious resistance, being forced to retire; he, however, received reinforcements, defeated the Turkish army before Kars, and captured the fortress by storm. In 1880 the nihilist movements having become alarming, and the danger of Russia being apparently imminent, the czar Alexander appointed Melikoff to a position of absolute authority and power—an actual dictatorship without responsibility—in which delicate and dangerous situation he conducted himself in such a manner as to command the admiration of the statesmen of Europe. He restored order in a great measure where anarchy had been impending; and wielded his unlimited authority with such firmness and judgment as to fully sustain the wisdom of his appointment.

MELISSUS, of Samos. See ELEATIC SCHOOL.

MELITA. See MALTA.

MELL, PATRICK H., D.D., LL.D., b. Ga., 1814. Left a destitute orphan by the death of his parents at the age of 14, but having received a good elementary education he earned the means to support himself for two years at Amherst college. He became a Baptist minister, and soon after the opening of Mercer university he was appointed professor of ancient languages. In 1851 he was called to the same professorship in the state university, and subsequently became vice-chancellor, resigning in 1872, but retaining the professorship. He was for 15 years president of the Georgia Baptist convention, and for 9 years of the southern Baptist convention. His published works are *Baptism; Corrective Church Discipline; Predestination; Essay on Calvinism; An Argument on the*

Subject of Slavery; A Sermon on God's Providential Government; a Treatise on Parliamentary Practice; Prayer as Related to Providence.

MELLEN, GRENVILLE, 1799-1841; b. in Biddeford, Me.; son of chief-justice Mellen; educated at Harvard and, after graduating in 1818, studied law and engaged in practice in North Yarmouth. He was a poet of much taste and some power, and also a magazine writer. Besides many occasional pieces, such as *The Rest of Empires*, read in 1826 before the Maine peace society, he published, in 1827, *Our Chronicles of Twenty-six*, a satire; *Glad Tales and Sad Tales* (1829), a collection of prose papers; and, in 1833, *The Martyrs' Triumphs* and other poems. In New York he began the issue of a *Monthly Miscellany*, which failed after a few numbers. Mr. Mellen had long been a sufferer from consumption, and in 1840 made an unavailing voyage to Cuba for his health.

MELLEN, PRENTISS, LL.D., 1764-1840; b. at Sterling, Mass.; educated at Harvard, where he graduated in 1784, and began the practice of law at Bridgewater, Mass. He afterward resided in Biddeford and Portland, Me. In his profession he soon acquired a high standing and took an active part in political movements. From 1817 to 1820 he was one of the United States senators from Massachusetts. In 1820 he was made chief-justice of the supreme court of Maine, which position he held for 14 years.

MELLONI, MACEDONIO, 1800-54; b. Italy; began the study of natural philosophy at school, and had already entered upon extensive experiments in regard to the radiation of heat, when, in 1824, he was called to the chair of natural philosophy in the university of Parma. In 1831 he was forced for political reasons to leave Parma and remove to France. His discoveries in the radiation of heat he laid before the French academy of sciences, in a memoir to which that body paid little attention; but the English royal society deemed it worthy of the Rumford medal. Through the influence of his friends Arago and Humboldt, Melloni was allowed to return to Italy, and was appointed by the king of Naples director of the meteorological observatory on Mt. Vesuvius. Here he discovered the existence of heat in the lunar light. In 1849, though he had taken no active part in politics, he was dismissed from his position in the observatory, on account of his known liberal views. He lived thenceforward in his villa at Partici, near Naples, continuing his experiments. In 1850 appeared the first volume of his *La Termocrosi*, dedicated to Arago and Humboldt. He disputed the theories of Faraday as to the diminished velocity noticeable in an electric current passed through wires under ground, or under water, in comparison with an equal current passing through wires in the air.

MELMOTH, WILLIAM, 1666-1743; b. England; called to the bar in 1719, and a bench of Lincoln's Inn, of which he was treasurer in 1730. He was associated with Peere Williams in the publication of Vernon's chancery *Reports*. He is, however, best known by his work *The Great Importance of a Religious Life Considered*, which was exceedingly popular in the last c., and of which over 100,000 copies are said to have been sold. It appeared anonymously, and was for a time ascribed to the first earl of Egmont. *The Memoirs of William Melmoth* was published by his son William in 1796.

MELMOTH, WILLIAM, 1710-99; b. England; son of William; called to the bar, and in 1756 made a commissioner of bankrupts; but he paid little attention to the practice of his profession, devoting his ample leisure to the cultivation of literature. Two volumes of *Letters on Several Subjects* appeared from his pen in 1742, under the pseudonym of sir Thomas Fitzosborne. They deal with a variety of subjects, chiefly literary and ethical. Five years later he published a translation of the *Letters* of Pliny, which is a model of elegance and exactness. This was followed in 1753 by a translation of Cicero's *Letters*, and in 1773 and 1779 by translations, with full notes, of the *De Amicitia* and *De Senectute*. He also wrote a treatise on the Christian religion; a poem on *Active and Retired Life*, which may be found in Dodsley's *Poems*; and a memoir of his father, which appeared in 1796 as *Memoirs of a late Eminent Advocate*.

MELO or MELLO, FRANCISCO MANUEL DE, 1611-65; b. Portugal; entered the army and became col. He was sent to suppress the insurrection in Catalonia against Philip IV. He entered the service of Portugal after its separation from Spain, but, falsely accused of murder, he was imprisoned, and for years was an exile in Brazil. He wrote in Spanish at the request of Philip IV. a history of the Catalanian revolution entitled *Historia de los Movimientos, Separacion y Guerra de Cataluña*, 2 vols. More than 100 volumes of his works have been printed. He wrote also several dramas and poems, the best of which was *Las tres Musas de Melo dino*.

MELODEON. See REED INSTRUMENTS.

MELOS, or MILO, an island of the larger Cyclades in the Grecian archipelago, or Ægean sea, about 70 m. n. of Crete, and 65 m. e. of Peloponnesus; pop. 4,000. It is 14 m. long, and 8 broad, and has on its n. coast one of the best and safest natural harbors in the Levant. The surface is generally mountainous, and of a volcanic character, and there are hot mineral springs, and deposits of sulphur. The soil is fertile, and produces largely in fruit, wine, and oil, while affording also excellent pasturage for cattle. In the e. part of the island, near the port, is the chief town, called Milo; and near are extensive remains of the ancient capital of the island. Near the sea the ground is marshy, and the air is unwholesome in summer. This island is said to have been colonized first by the Phœnicians, and afterwards by the Lacedæmonians. An attempt made by the Athenians to

reduce it during the Peloponnesian war, was unsuccessful, but some years later they besieged the town, put the adult males to death, carried away the women and children into slavery, and occupied the place by a colony of Athenians. Melos fell successively under the dominion of the Romans, the Byzantine emperors, Venice, and the Turks. it is now a part of Greece. In 1820 admiral Dumont found in Melos the since celebrated statue known as the "Venus of Milo," and which now stands in the Louvre. This statue was without arms when found, and in 1877 it was reported that the lost members had been found near the locality where the statue was originally discovered. The highest eminence on the island is Mt. St. Elias, 2,538 ft. high. The Cyclades group of islands are believed to have formed in antediluvian times a part of a continuous chain of mountains connected on the n. with the mountains of Attica, and by the island of Melos with the western mountains of Candia on the south. Between Melos and Argentiera, a rocky island to the n., is a channel half a mile wide, which has an evil notoriety for its peculiarly dangerous character.

MELROSE, a t. in Middlesex co., Mass., 8 m. n.w. from Boston, on the Boston and Maine railroad; pop. 3,414. It has seven churches, 14 public schools, 2 post-offices, a public park, a library, 1 weekly newspaper, a volunteer fire department, and manufactures of furniture, boots and shoes, sewing-machine needles, silver polish, etc. It is supplied with water from Spot pond. It is pleasantly situated, and is an attractive place for residence of business men from Boston.

MELVIL, Sir JAMES, OF HALLHILL, 1535-1617, was the third son of sir John Melvil or Melville of Raith, Scotland, who was convicted and executed at Stirling on charges of high treason brought by archbishop Hamilton, on account of his devotion to the principles of the reformation. His estates were confiscated and the widow and children reduced to poverty. Young Melvil was sent to France and became page of honor to the bishop of Valence, and was afterwards attached to the service of the constable Montmorenci. Under him he saw his first military service in Flanders in 1553, and in 1557 was taken prisoner at the battle of St. Quentin after the defeat of the constable's forces. Two years afterwards he obtained his release and was dispatched to Scotland on a secret mission. During his absence occurred the tournament in which Montmorenci had the ill fortune to kill Henry II.; and at Melvil's return he judged it best to turn his steps towards Germany, where he was employed by the elector palatine. While on a visit to France in 1561 he for the first time met queen Mary of Scotland, to whom he tendered his allegiance and sword; and in 1564, having received a summons through Moray, he returned to his native land and presented himself to Mary at Perth. Shortly afterwards he was sent to England as ambassador to queen Elizabeth, and the account given in his memoirs of this embassy is of great historical value. Again in 1566 he was sent to England to bear the news of the birth of an heir to the Scottish throne. In the eventful period which followed, Melvil displayed much prudence and policy. He adhered to the queen so long as there appeared to be any hope of her ultimate success, but after she was committed to Lochleven castle, was received into some favor by the regency; but not being a favorite of the earl of Arran, his name was struck off the list of privy councillors. In 1590 he was attached to the queen's household. *The Memoirs of Sir James Melvil of Hall-hill; Containing an Impartial Account of the most Remarkable Affairs of State during the last Age, etc.*, was published in 1683 by his grandson, George Scott. This edition differs in many respects from a manuscript afterwards found, in what is thought to be sir James's handwriting; the latter was printed in 1827 at Edinburgh.

MELVILLE, HENRY, D.D., 1800-71; b. at Pendennis castle, Cornwall, England; educated at St. Peter's college, Cambridge, where he took his degree in 1821. After taking orders he became the incumbent of the parish of Camden chapel, in London; and filled successively the offices of principal of the East India college, chaplain of the Tower of London, chaplain to the queen, 1853, canon of St. Paul's, 1856; and in 1863 became rector of Barnes, and a rural dean. His reputation, both as a finished and elegant writer and as a pulpit orator of power and eloquence, gave him a very high position among the English clergy. In 1848 he was elected incumbent of what is known as the golden lectureship of St. Margaret's. A great number of his lectures and sermons have been published in England and republished in this country. Of these the *Golden Lectures* and a number of others were printed without his consent. In 1847 a New York house published in two volumes 68 sermons, printed with the consent of the author. We may also note *Voices of the Year*; *Golden Counsels* (1857); and *Persuasions to a Christian Life*, as among the best of his writings. Melville is described by the author of *Random Recollections* as "certainly the greatest rhetorician among our metropolitan preachers. He clothes the most commonplace ideas in language which is so rich in the ornaments of rhetoric that they are often mistaken for conceptions of the most brilliant character. He is exceedingly partial to the use of analogy in addressing his hearers. And his analogies are often exceedingly happy; at times they are particularly striking. . . . He arrests the hearer's attention the instant he begins, and carries him with him, a willing captive, to the close of his sermon." A severe taste will sometimes consider his analogies extreme in their range.

MELVILLE ISLAND, off the n.w. coast of Australia, from which it is separated on the e. by Dundas strait and on the s. by Van Diemen's gulf and Clarence strait,

while Bathurst island lies to the w., being separated from Melville island by Apsley strait; it is 70 m. in length and 30 m. wide, and extends from lat. $11^{\circ} 8'$ to $11^{\circ} 56'$ s., and from long. $130^{\circ} 20'$ to $131^{\circ} 34'$ east. The coast is in general high and steep, the surface being in great part table-land, though it rises to the height of 150 or 175 ft. in the central part. The *fauna* and *flora* in general correspond to those of Australia. The natives are superior to those of the continent both in physique and in mental capacity. The climate is, of course, very warm, and during the wet season is not healthful.

MEMBERTOU, HENRY, 1500-1611: b. Canada; a medicine-man in the Micmac tribe. He was friendly to the French colonists who arrived in 1604, and fought a number of Indian tribes hostile to the French. Lescarbot wrote a poem in honor of the victory gained by Membertou in 1607 over the Armouchiquois, a tribe in the vicinity of the Merrimac river. Three years later he, his wife, and three sons were baptized as Christians. The next year, under the care of the French missionaries, he died at Port Royal at the estimated age of 110.

MEMBRANE, (*ante*), a name given to different thin organs, in the form of supple, more or less elastic tissues, for the purpose of enveloping or separating other organs, and in many cases, of secreting certain fluids. Bichat divided membranes into simple and compound. Simple membranes are of three kinds, mucous, serous, and fibrous. Mucous membranes line the cavities which communicate externally with the skin, as the mouth, intestinal canal, genito-urinary passages, internal surface of the eyelids, and the ramifications of the respiratory passages, the eustachian tubes and middle ear. Mucous membrane has three layers; a fibro-vascular layer, composed of blood-vessels, nerves, and connective tissue, which is continuous with the tissue beneath and interlacing with it; a more superficial layer, called basement membrane, which is described as structureless, and upon which rests the superficial layer, or epithelium, the latter presenting a variety of structure in various parts of the body. The two lower layers, the fibro-vascular and the basement membrane are continuous with the two lower layers of the skin, in reality forming the same organ, which passes under the common name of corium. The basement membrane is not in all localities susceptible of demonstration. The epithelium is composed of numerous cells called epithelial cells of various forms. The chief purpose of the mucous membranes are to secrete mucus to lubricate the various passages, at the same time that the mucous fluid performs other physiological offices. The salivary mucus, to some extent, aids digestion, and the digestive fluid (gastric juice) is a species of mucus; so also is the pancreatic fluid, and the product of the various intestinal glands. See EPITHELIUM, *ante*. The serous membranes line all the shut or closed cavities, and are of two kinds; those lining the cavities of the thorax and abdomen, the pleuræ (q.v.) and peritoneum (q.v.), and those which line the cavities of the joints. See SYNOVIAL MEMBRANES, *ante*. The third species of simple membrane of Bichat is the fibrous, divided into two sections; enveloping aponeuroses, the fibrous capsules of joints and the sheaths of tendons—and the enveloping membrane of bone, the periosteum, the dura-mater (the internal periosteum of the skull), the fibrous membrane of the spleen and other glandular organs. See SPLEEN, *ante*. The compound membranes Bichat divided into three sections. 1. Sero-fibrous, composed of fibrous and serous layers intimately adherent, as the pericardium, dura-mater, and tunica-albuginea. 2. Sero-mucous, composed of serous and mucous layers, as the gall bladder at its lower part. 3. Fibro-mucous, formed by the union of fibrous and mucous membrane, as the mucous membrane of the nasal fossæ, gums, etc. It will be perceived that the compound membranes form a classification which embraces elements classed among the simple membranes; and this is natural, seeing that the compound are made up of simple membranes.

MEMBRÉ, ZENOBIUS, 1645-87; b. at Bapaume, France; became a member of the Franciscan order, and went as a missionary to Canada in 1675; accompanied La Salle upon his expedition to the Mississippi in 1679, stopping at fort Crèvecoeur, on lake Peoria, where he aided in making peace between the Iroquois and Illinois Indians; descended the Mississippi with La Salle in 1682, and returned the same year to France, where he published an account of the expedition. After acting for a time as warden of a convent at Bapaume, he came again to America, and accompanied La Salle in his final expedition by sea to Texas in 1684, and remained in Fort St. Louis, where, with his companions, he was massacred by the Indians.

MEMLING or HEMLING. HANS, 1435-95 (about) probably a native of Bruges, but very little is known about the date and place of his birth or the time of his death, which could not, however, have been later than 1495. Several other ways of spelling the name are given, but "Memling" has decidedly the best authority. He was, at least, an artist of the Flemish school, if not of Flemish birth, and painted a large number of altarpieces and pictures on sacred subjects, to which his work was almost wholly confined. It is a matter of great uncertainty to say what were and what were not his productions. Rathgeber designates over one hundred pictures, but very few of these are fully authenticated. The earliest of those which it is thought are genuine is dated in 1450 and the latest in 1491. Memling is said to have served under Charles the bold of Burgundy, and it is related that after the battles of Granson and Morat, he was admitted as a wounded soldier, into the hospital of St. John's, at Bruges. Here it was, at all events, that were painted many of the finest works attributed to him. Of these, the principal are; the

illustration in a picture composed of many small compartments, of the history of St. Ursula and her companions; the marriage of St. Catherine, his finest picture, and one of the best of that c., consists of a central composition representing the marriage, and two wings or side pieces, depicting the beheading of John the Baptist and the vision of John the Evangelist. There are many pictures, presumably Memling's, at Berlin, Antwerp, the Hague, and other parts of Europe, and two or three in England. Specially worthy of praise are:—"St. Christopher carrying the Child," "Joys and Sorrows of the Virgin," and "The Journey of the Three Kings from the East." In all of these there is not only great harmony in color and effective use of light and shade, but most noteworthy of all is the wonderful perfection in matters of detail. The last named picture contains nearly 1500 objects and figures of small size, all of which are elaborated in the most minute manner, and this, too, without neglect of general effects.

MEMLOOKS. See MAMELUKES, *ante*.

MEMMINGER, CHARLES GUSTAVUS, b. Würtemberg, Germany; and was brought to this country at a very early age by his mother. By her death he was soon left an orphan. Much interest was taken in him by gov. Thomas Bennett of Charlestown, S. C. at which place he was then situated. He was educated at the South Carolina college, where he graduated in 1820 and subsequently studied law. He opened practice in Charlestown, where he acquired some note as an opponent of the Calhoun doctrine of nullification; and on that subject he wrote a satirical book which he called the *Book of Nullification* (1832), and which was written in an imitation of Biblical style. He was elected to the state legislature, and made strong arguments in opposition to the suspension of specie payments by the banks after the panic of 1839; and he was for many years head of the legislature finance committee. Shortly after the outbreak of the rebellion he was made secretary of the treasury by the confederate government, and held that position for three years, 1861-64, when he resigned.

MEMPHIS (*ante*), capital of Shelby co.; the chief city in Tennessee, and the largest city on the Mississippi river between St. Louis and New Orleans; pop. '80, 33,593. It is situated on the fourth Chickasaw bluff, 800 m. above New Orleans. The view of the city from the river is very attractive; a broad esplanade, extending along the bluff, covered with fine warehouses, presenting a very striking appearance. The streets are broad and regularly laid out, the suburbs being occupied by handsome residences standing in the midst of fine lawns; the entire length of the city is three miles. A fine park in the center is filled with large old trees, in which thousands of squirrels disport themselves, and are so tame that they will eat from the hands of visitors, clamber upon their knees and shoulders, and hop fearlessly about on the graveled walks, regardless of the numbers of persons who are commonly promenading. The safety of these attractive little creatures is amply provided for by the general understanding that they are not to be molested. There are six cemeteries in the vicinity of Memphis, of which the principal one is Elmwood, on the s.e. border of the city. There is a local chamber of commerce, a board of health, and a cotton exchange. Railroads centering here make connection with all parts of the country, north and south; while the Mississippi river, affording navigation during the entire year, is the scene of an immense commerce. Owing to its proximity to stagnant water and to an imperfect system of drainage and sewerage, Memphis has frequently been subject to visitations of the yellow-fever, which have nearly depopulated the city. The last epidemic occurred in 1879, lasting from July until cold weather set in. The mass of the inhabitants deserted the city, leaving only the very poor and the colored people. During this season there were several hundred deaths by yellow-fever, an efficient quarantine being sustained. Recent and, it is said, successful efforts have been made to improve the drainage and prevent disease.

MEMPHREMAGOG, LAKE, in Canada and in Orleans co., Vermont; about 30 m. long from n. to s., with a width varying from 2 to 5 miles. Its outlet is the Magog river, which discharges into the St. Francis river, a tributary of the St. Lawrence. Its shores are steep and picturesque, and it contains a number of islands. Its scenery and facilities for fishing attract many visitors in the summer. Steamers run, in that season, between its s. point, the town of Newport, Vt., and Magog, the village at its outlet.

MEN, THE, are a somewhat remarkable class of persons found chiefly in those parts of northern Scotland in which the Gaelic language is spoken, and where large undivided parishes, a deficiency of ministers, and other causes have developed a class of religious instructors and overseers who, without regular appointment, somewhat resemble the local preachers of the Methodist church. They are called "men" as a title of respect, in acknowledgment of their mental endowments, knowledge, and piety. They pass into the order informally, and by the gradual reputation which they acquire among the people around them for superior gifts and experience. By excellence in prayer and exhortation, and by constant attendance at the meetings for promoting Christian activity and fellowship, they step by step advance into the order of "the men." There are in many parishes three or four "men;" and on communion occasions, Friday being specially devoted to prayer and exhortation, these lay-exhorters have then a public opportunity for exercising their gifts. As there may be 20 or more of them assembled from neighboring parishes, the services of the day are given up to them, presided over by the minister of

the parish, who generally sums up the opinions and sentiments that have been expressed. Many of the "men" wear on these occasions a large blue cloak, and in going about among the people they are received with much respect and kindness. The influence which they acquire is very great, and in some cases is grievously abused. Yet these constitute the exception, not the rule. There is no doubt that in many destitute regions these workers among the people have done much to keep alive and extend true religion. Since the organization of the Free church of Scotland, as the supply of regular gospel ordinances in the Highlands has been greatly increased, the need for the services of the "men" has been proportionally diminished, and their influence is therefore passing away.

MENABRE'A, LUIGI FEDERIGO, Count; b. at Chambéry, in Savoy, 1809; educated for an engineer; entered the army as lieut., but was early promoted to a professorship of applied mathematics in the military academy of Turin, where he at once distinguished himself by scientific essays contributed to the academies of science of Paris and Turin. In 1848 he promoted the union of Piedmont and Sardinia; was elected a member of the Subalpine parliament, appointed secretary of the minister of war, and the following year secretary of foreign affairs. After participating in vigorous measures to resist the Austrians, he continued a member of the chamber, assuming at first the defense of the church of Rome, and believing in the possible accord of the papacy with Italian unity. But, through the influence of Cavour, after 1859 he abandoned that hope, and ranged himself with the radical unionists. After the defeat of the Austrians by the French, and the annexation of Savoy to France, he left the province to retain his citizenship of Italy, and was made director of military siege operations against Gaëte and the king of Naples, in "the Sebastopol of the Bourbons." It surrendered after 57 days' siege, for which success he was made lieut. gen. and count. In 1861 he succeeded Ricasoli as minister of marine, and in 1862 added the duties of minister of public works. He was a party to the convention between France and Austria in 1864, and of the treaty of Prague in 1866, which finally led to the annexation of Venice to Italy; and it was he who presented to Victor Emmanuel the iron crown of Lombardy. He was called in 1867, on the retirement of Ratazzi, to form a new cabinet. Garibaldi was marching upon Rome, to sever the last link in the chain of papal civil power in Italy. France opposed Garibaldi with her troops. Menabrea did the humiliating duty of endeavoring to buy the withdrawal of the French troops, and the substitution of Italian troops, by a promise to disavow the acts of Garibaldi. Occupying this equivocal position of half-sustaining the temporal power of the pope, keeping the peace with France, and yet advocating the unity of Italy, he fell between all the parties and tendered his resignation. Victor Emmanuel refused to accept it. Menabrea formed a new cabinet and continued with adroitness to pursue the road which Cavour had marked out: viz., to submit to the meddling of France in the defense of the pope till events should ripen for Italian unity. He continued at the head of affairs for two years, temporizing with the pope and the republicans, and enduring the policy of Napoleon through fear. When the pope in 1869 convoked the bishops to announce the *syllabus* of infallibility, Menabrea proclaimed the reserved rights of the state as without the pale of the pope's powers. Italy outgrew his timorous policy, and in Nov., 1869, he gave way to the ministry of Lanza-Sella. He has published *République et Monarchie dans l'état actuel de la France*, 1871.

MENARD, a co. in central Illinois, along the Sangamon river, which with Salt creek forms its n. boundary; 300 sq. m.; pop. '80, 13,028. The surface is level, with considerable growth of wood. The soil is fertile, and produces oats, Indian corn, hay, wheat, and potatoes. The Chicago and Alton, and the Springfield and Northwestern railroads pass through it. Co. seat, Petersburg.

MENARD, a co. in n. central Texas, along the shores of San Saba river; 800 sq. m.; pop. '80, 1239. The soil is fertile, and there is a considerable growth of wood. The principal production is cattle. It is a good grazing country, which, as yet, has been little opened to cultivation. Co. seat, Menardville.

MENARD, RENÉ, 1604-61, b. in Paris; sent to Montreal as a French Jesuit missionary in 1640; thence to the Nipissings n. of the lakes; afterwards at Three Rivers. He was at Cayuga in 1656, at Oneida soon afterwards, and remained with the Indians when personal violence and death to the missionaries was frequent among them. In 1658 and 1660 he was with the Ottawas of lake Superior, by whom he was not well treated. His last station was in 1661 at St. Teresa's on Keweenaw bay.

MENASH'A, a village of Winnebago co., Wis., on the Chicago and Northwestern, and the Wisconsin Central railroads, 18 m. n. of Oshkosh; pop. of village, 2,484; of township, 3,107. It has a weekly newspaper, a national bank, and several manufactories.

MENAS'SEH BEN ISRAEL (MANASSEH BEN JOSEPH BEN ISRAEL), 1604-59, b. Spain; went to Holland, when young, with his father, to escape the inquisition. There he was educated, and when but 18 years old succeeded his tutor, the rabbi Uziel, as expounder of the Talmud, and preacher in the Amsterdam synagogue. He now began his *Conciliador nel Pentateucho*, which appeared in 1632, and secured for its author a

high rank among Hebrew theologians. A Latin translation of it, by Dionysius Vossius, was published the next year, under the title of *Conciliator*.

MENDÆANS. See CHRISTIANS OF ST. JOHN.

MENDAÑA DE NEYRA, ALVARO, 1541-95; b. in Spain; emigrated to Peru, and had resided some time at Lima, when his uncle, Lope Garcia de Castro, the viceroy of the country, put him in command of an expedition for purposes of discovery among the islands of the Pacific. With two small ships and 125 men he sailed from Callao Nov. 19, 1567. Among his discoveries was a group of islands which he named "Solomon islands," thus indicating his belief that Solomon obtained from them the gold used in the temple at Jerusalem. Returning to Lima in 1568 he circulated reports of the wealth of these islands, which led, 27 years later, to an expedition for their colonization, of which he took the command. Sailing from Callao April 11, 1595, he discovered another group of islands, which he named the Marquesas, after the wife of the viceroy of Peru, the marchioness Mendoza. Sailing n.w., other groups of islands were visited, but Mendaña died in October without having reached the end of his voyage, which, however, was completed by his widow. Mendaña's narrative of his first expedition is in the imperial library at Paris.

MENDAÑA ISLANDS. See MARQUESAS, *ante*.

MENDES, a city of ancient Egypt in the delta Parvum, and near the coast. It gave name to the Mendesian district, and was its chief city. It was near the point where the Mendesian arm of the Nile enters the lake of Tanis. It was a place of importance in the time of the Pharaohs, and noted for the manufacture of a perfume called *Mendusium unguentum*. The deity there worshiped was in the form of a goat, and called Pan by the Greek writers. Mendes gradually disappeared from history, being in ruins in the 1st c. B.C., but in its vicinity arose the city of Thmuis.

MENDEZ-PINTO, FERNAM, 1510-83, b. Portugal; at first a servant to a gentleman in Portugal. He sailed for the East Indies in 1537, in the hope of making a fortune. The ship on which he embarked was captured by the Turks, and he was sold a slave. Finally, by the good offices of the governor of Ormus, who had redeemed him from slavery, he was enabled to go to India, where he remained for many years. He returned to Portugal, in 1558. He wrote an account of his travels, which was published in 1614, and translated into French in 1654. It contains much curious information in regard to the geography and social condition of the east; but it indicates great credulity or a want of veracity on the part of its author.

MENDICANCY. (See POOR AND POOR LAWS, *ante*.) Mendicants are practically all persons who gain a livelihood by beggary; a definition excluding those who are willing to work but cannot, owing to lack of demand for labor; and those who temporarily receive assistance because of ill-health or other misfortune. The class we are considering does not exist in uncivilized or savage society. Yet among the least highly civilized we find it flourishing—as in Egypt, and in the case of the lazzaroni of Italy. In large cities mendicancy has become an art, and professional beggars are found in London, Paris, and New York, who have amassed large sums of money by the constant pursuit of a trade which with them has ceased even to be precarious. While we may possibly, with some degree of justice, find the origin of professional beggary in the course not only pursued by, but enjoined upon the orders of, mendicant friars in central and southern Europe, it is certain that the concentration of wealth, the decline in the value of money in the minds of those by whom it has been easily obtained, and the consequent habit of lavish giving, must eventually have brought this condition into being, even though the church had not encouraged its establishment. Twenty-five years ago (1855) it was said by an English writer that a three days' rain about London would at any time bring 30,000 coster-mongers, or venders of provisions, to the verge of famine. This is suggestive. The precarious character of the vocation of many of the lower classes of laboring people, and the imminent danger in which they constantly are, must be a grave temptation to the pursuit which we are considering. In thickly settled towns and cities the chances of gaining the necessities of life are certainly greater in this line than in many trades. It is not liable to the fluctuations occasioned by fashion, or changing taste; by the influence of the seasons; or by the other numerous vicissitudes which deprive ordinary trades of the element of certainty of return. The professional beggar is not limited to any special range, but may vary his hunting-ground by necessity, caprice, or accident, and be equally certain of success. Also there are peculiar attractions in mendicancy for the uneducated and unskilled, yet not lawless portion of a population, in its comparative freedom from restraint; its opportunity for roving, and for a wild companionship with congenial spirits, precluded by the social order of a regular business life; and, finally, the charm and satisfaction which it offers, of gaining something for nothing; of living on humanity without labor yet without crime; of satisfying the stern natural sense of justice which exists in the bosom of the unfortunate and the indigent, by making the rich support the poor—yet without compulsion. It may also be considered as one of the compensating forces of the social organism, occasioned by the reaction from extreme wealth to extreme poverty, and

formulated in an unreasonable demand, answered by a groundless concession; in fact a humanitarian paradox.

The difficulty of dealing with poverty justly, and with a due sense of its various causes and results, has been a social problem ever since there has been any society; and quite the most difficult part of this problem to handle wisely, or to control at all, has been mendicancy. The same English writer to whom we have already referred, in writing generally on the charities and poor of London, says: "But the great problem which perplexed our ancestors less than ourselves, only because in a less crowded state of society social evils were more easily dealt with, was mendicancy. In every community there must always be some who cannot dig, and in the most primitive there are always some who will not, and are not ashamed to beg. From the earliest times the sturdy mendicant has constituted himself the representative of the poor, in whose behalf the Gospel pleads so authoritatively. In that character he lounged at the convent-grate, he devoured his dole at the baron's hall-door, he clamored for alms at the church-porch, and in that capacity we presume he is accepted by the modern advocates (happily few in number) of indiscriminate alms-giving. But even in the most picturesque times, when he pretended to show the scallop-shell from the holy land in his hat, or perhaps the scars of infidel sabers on his body, he was but a good-for-nothing vagabond." The enactment of the poor-law in queen Elizabeth's reign has been attributed to a necessity occasioned by the dissolution of the convents, which were supposed to feed the poor to such an extent as to make the necessity when they ceased to exist. That this was not true is shown by the fact that acts for the suppression of mendicancy were passed before the dissolution of the monasteries. The act of Elizabeth was passed from a desire to effect a social reform, and similar acts were passed in succeeding reigns down to the present, and for the same reason. But though from time to time acts against able-bodied paupers were multiplied, the vagrant continued to prefer idleness and independence to work or the poor-house, and by degrees the number of beggars swelled, till they exceeded the powers of the beadle and constable to arrest, and of the jail or poor-house to contain, and actually acquired an almost legalized existence. At the close of the great European war the evil had reached its height; ostentatiously loathsome objects paraded the great thoroughfares; professional beggars, by a police of their own, quartered the towns among them, and in 1818 an association was formed in London to accomplish what the state had failed in doing. This organization took the name of the society for the suppression of mendicity. A large staff of paid agents was engaged, and the committee for its management counted among its members many naval and military men, trained to habits of order and system; and who, being without professional employment, brought their administrative talents to the service of the new society. This organization did good work, and was the foundation of methods which have since been applied with success; and mendicancy has largely diminished. The reform movement in England in 1834, and new legislation, still further lessened the evil; yet so acute and well informed an observer as the rev. Charles L. Brace says that "the conclusion of all European experience is that nothing can permanently affect the evil of mendicity but a general diffusion of prosperity, morality, and intelligence," certainly affording a gloomy outlook for the future, both in Europe and America; since concentration of wealth, rather than its diffusion, seems to have become the order of society; and the probability of general "prosperity, morality, and intelligence," in the face of that tendency, is, to say the least, remote.

The theory held by many that pauperism bears a direct relation to the price of corn would seem to have been practically disposed of by the statistics of the sums expended in relief from 1813 to 1860 in England. By these it is seen that while there was a steady decline in the amount from about £6,650,000 in 1818 to £5,550,000 in 1859, the difference of 20 per cent was far less than it should have been to sustain the theory. For the price of corn had fallen during the 46 years, from 125s. per quarter to 42s. 9d., or sixty-six per cent. And this fact goes far to sustain the assertion that pauperism, and equally or even more, mendicancy, rely for their fluctuations in degree upon causes outside of all such material considerations.

The history of mendicancy in France attests the antiquity of the profession, and offers some pertinent facts. Thus, as early as the middle of the 14th c., in the reign of king John, it was found necessary to issue an ordinance commanding all able-bodied beggars to find work or leave Paris, with the alternative of imprisonment, the pillory, and branding, according to the number of offenses against the law. A similar act was passed in 1413; but Francis I. rescinded both, and instead directed the public authorities to set those persons indicated to work, if necessary by force. But it was found that severe laws had but little effect in suppressing the evil; and though in 1627 beggars were directed to be impressed into the naval service, and even expatriated by being sent to the Indies, work-houses were established in France, and thus a new system was begun. In 1688, all previous plans having failed, a law was enacted forcing every beggar to leave Paris, on pain of being sent to the galleys. Even this harsh measure was incompetent to relieve the city of mendicants, much less the entire kingdom; and in 1698 it was estimated that one-tenth of the entire population were beggars. The work-house plan was now tried again, and in four years 80 of these were established. These institutions not only did not succeed in rooting out the evil, but they were found to be, instead

of self-supporting, as was anticipated, a severe tax on the state. They were gradually suppressed, and at present very few exist. Mr. Brace remarks as to the various French methods: "Thus, during five centuries every species of penalty and punishment has been tried in vain in France to repress mendicity. Humane legislation has been equally a failure; and the sum of all experience in that country is that all legal means fail to reach this great evil." But the fact is that there is less mendicancy, as there is less pauperism in France, in proportion to its population, than there is in any other country in Europe, or in the United States. And it would appear that to seek for the cause of this fortunate condition we must analyze the effect of the French land laws. For the fact that in France, where there is no law of entail for landed property, and where a father cannot by will alienate this species of property in any one direction; but where, on the contrary, land is divided among all the heirs, on the death of the owner,—there must of necessity be such a subdivision of land that the existence of pauperism on a large scale becomes practically impossible: the result being that the land is divided among a larger number of owners than is the case with any other country. Another and curious reason for the condition of France as regards pauperism is found in the fact of the apparently stationary condition of her population. Between 1851 and 1876 the population increased only about 3 per cent, and was nearly what it was in 1870. The birth-rate in France is only 26 in a thousand, being far below that of any other country. An ingenious Frenchman bases on this condition the positive prosperity of his country, on the ground that the number of non-producers is lessened, and so much less drain on the resources of the country for their support is the result.

The record of pauperism and mendicancy in the United States has been similar to that of England in its general conditions. The class of beggars in the large cities and towns has been supplemented by that of "tramps." These are comparatively recent in their origin in the United States; and it is not improbable that they were originally an exportation from England, where they have long been a feature of pauperism. They have increased greatly in number in recent years, and in Massachusetts alone there were said to be a few years ago 25,000 of these peripatetic beggars. It is certain, also, that they are to a certain extent organized, that they associate with each other, and that they communicate by signs and marks placed where they can be found by the initiated. The proportion in Massachusetts applied to the entire population would give 750,000 as the number of tramps in the entire country, or one in 66. In England, in 1867, the number of tramps was returned, on a certain specified night, at 33,191—very little more than the number in Massachusetts alone, and in the proportion of 1 to 666. Various efforts have been made in the United States in the special direction of reducing the number of tramps, culminating in the passage of severe "tramp laws" in Massachusetts and a few other states. These laws are of very recent enactment, and their effect has not yet been made known. It is probable that unless similar legislative action took place in all the states the effect would be only to drive them from one state to another.

MENDIZABAL, JUAN ALVAREZ Y, 1790-1853; b. in Cadiz; son of a Jew, brought up in trade, placed in a bank, where he quarreled with the principal, and first noted as a politician in connection with the republican movement in Spain between 1819 and 1823; for which he obtained in England timely loans. In 1824, banished from Spain, he established a commercial house in London; was the medium of a loan to Dom Pedro in 1827, to Spain in 1833, and was recalled in 1835 by Toreno to take charge of the department of finance. He returned to Spain with the *éclat* of a completed loan of £1,150,000, made in London. After great boasts of what he would do, followed by small results, he was displaced in May, 1836, and, though twice called back to the portfolio of finance, was not afterwards distinguished.

MENDOCINO, a co. in n.w. California, having the Pacific ocean for its w. boundary, the Mayacmas mountains for its s.e., and the continuation of the Shasta mountain range for its e. boundary; 3,650 sq.m.; pop. '80, 12,800—10,393 of American birth, 1613 colored. It is drained by the Eel river and the South Fork in the e., the Russian river in the s., and the Novarro river. Its surface is mountainous, furnishing good grazing pastures, and is diversified by lakes, fertile valleys, and immense forests of redwood. used for building-timber, grow along the coast. Its soil is very fertile, and adapted to the production of grain, fruit, and dairy products. Horses and cattle are raised, and large numbers of sheep. Wool and lumber are the chief products. It has several excellent harbors. County seat, Ukiah.

MENDO'TA, a village of La Salle co., Ill., at the junction of the Chicago, Burlington and Quincy, and the Illinois Central railroads. Pop. of village, exclusive of township, 1043. It has 2 churches, 2 graded public schools, a library, 2 banks, an iron foundry, an organ manufactory, and a weekly newspaper.

MENDOZA, a province of the Argentine confederation, South America, along the e. of the Andes, bounded on the n. by the province of S. Juan, on the e. and n.e. by S. Luis, on the s. and s.e. by Buenos Ayres, and on the w. by Chili; about 34,000 sq.m.; pop. about 65,000. The w. part of the province is traversed by a part of the Andes chain, from which the surface slopes down to the Mendoza river, at which a great plain begins to stretch eastward. This plain is sandy, but with proper irrigation produces good crops of barley, maize, wheat, and lucerne. Apart from the cereal crops

the chief productions are wines, brandy, tallow, and soap. Hides and dried fruits are exported to Chili. There are a few silver mines, and copper is known to exist in quantities, but the veins have not as yet been worked. There are extensive saline deposits; and shales, slates, gypsum, and limestone are found. Rain and dew are infrequent, except along the s. boundary; elsewhere artificial irrigation has to be resorted to, as even grass will not grow on the e. plains without it. Mendoza is one of the federal states of the Argentine republic, but practically manages its own affairs by means of a governor and an assembly. The capital of the province is Mendoza, built on a plain, 2,891 ft. above the level of the sea. Pop. about 10,000.

MENDOZA, ANTONIO DE, 1495-1552; b. Granada; was appointed viceroy of Mexico by Charles V. April 17, 1535, invested with full power of rule. In the administration of the government he made many wise and benevolent reforms, especially in regard to the Indians who had been the victims of much suffering. In 1536 he introduced into the city of Mexico the first printing-press brought to the country; established a mint, at which the first coining, in the same year, was done by his orders; promoted agriculture and developed the mining wealth of the land, and founded the first college there. He repressed a serious Indian revolt, wisely tempering rigor with justice. In 1551 he was transferred to the viceroyalty of Peru. He was the first of 64 viceroys in Mexico, and his government was the longest and most distinguished of all.

MENDOZA, IÑIGO LOPEZ DE, Marquis of Santillana, 1398-1458, b. Spain; son of the grand admiral of Castile, and grandson of the poet Pero Gonzalez Mendoza. His father died during Iñigo's infancy, and the family estates, the most extensive in Castile, were seized by the ruling nobles of the kingdom. But Iñigo recovered them, either in the courts or on the field, before he was out of his minority. He took a prominent share in the military and political affairs of Castile, and was created marquis of Santillana after the battle of Olmedo. After the fall of the constable Alvarado de Luna, Mendoza retired from public affairs, and devoted himself to literature. His poetry is largely unpublished, though some of it is contained in different collections of songs. He was familiar with Italian and Provençal literature, and many of his most charming poems show the effect of Provençal influence. He introduced the sonnet into Spain, but his own sonnets are of little value. He imitates Dante, in his poems on the death of the marquis of Villena and on the coronation of Jordi. The most important of his poetical works is the *Comedieta de Ponza*; his most pleasing poem is called a *Serranilla*, or little mountain song, and was composed in honor of a little shepherdess, "the milkmaid of sweet Finojosa." In Spain itself his *Refranes*, a collection of rhymed proverbs, is his most popular work. His principal though perhaps doubtful service to Spanish poetry was his introduction of allegory into poetical composition.

MENDOZA, JUAN GONZALES DE, 1540-1617; b. Toledo, Spain; of a wealthy and distinguished family. He joined the army, but resigned after some years to enter the order of St. Augustine; was sent by Philip II. to China in 1580, where he spent three years in gaining information as to the politics, commerce, manners, and customs of the country. He spent two years in Mexico before returning to Spain. He published an account of his observations in China in a work entitled *Historia de las Cosas mas Notables Ritos y Costumbres del Gran Reyno de la China*. An English translation appeared in 1588, and it was reprinted by the Hakluyt society in 1853-54. Father Mendoza was successively bishop of the Lipari islands, vicar-apostolic of Mexico, and bishop of Chiapas and of Popayan, New Granada, where he died.

MENDOZA, PEDRO DE, 1487-1537, b. Spain; an official in the service of Charles V. In 1535 he went on a voyage to South America for the purpose of exploring the south of that continent, and with authority to take possession of and colonize it in the name of Spain. Made governor of the territory he was to conquer, he left Spain with a fleet of 12 ships, containing 800 men. At Rio Janeiro, Osorio, the vice-admiral, was murdered by some of his subordinates. Mendoza then sailed up the Rio de la Plata, and laid the foundations of the city of Buenos Ayres, where he established a colony. His brother, Gonzalo, went to Paraguay and founded Asuncion in 1536. The colony at Buenos Ayres did not prosper from the first. Aside from the privations to which the colonists were exposed, and the mortality incident to a community not yet accustomed to a new climate, the settlement was constantly attacked by the neighboring Indian tribes, and brought to the verge of destruction. Mendoza, after many disappointments, died on his voyage back to Spain.

MENENDEZ DE AVILES, PEDRO, 1519-74; b. at Aviles, Spain. Educated to the sea, he for many years commanded a privateer which was the terror of the French corsairs. By Philip II. he was given a commission in the regular navy and made capt. gen. of the India fleets. In this position he won important victories over the pirates, and was of great service in successfully transporting to Philip the reinforcements which carried the day at the battle of St. Quentin. On June 29, 1565, he sailed from Cadiz with a fleet of 34 vessels with the intention of founding a colony in Florida, of which he had been appointed *adelantado*. The French Huguenots had already established a foot-hold near the mouth of the St. John's river, under the leadership of Ribault. The Spaniards were by far the most powerful in numbers and equipments, and in the ensuing contest

the main French stronghold, fort Caroline, was captured, many of the colonists were massacred, and when those who had escaped to the ships of Ribault were wrecked and in a starving condition, Menendez received their surrender, promising to spare them; but, with a treachery and cruelty almost beyond belief, violated his plighted word and slew nearly all of them. Many were hanged and left bearing inscriptions stating that they were killed "not as Frenchmen, but as heretics." When, soon after, the atrocity was avenged by the French adventurers under Dominique de Gourgues, the Spaniards were hung upon the same trees, with placards stating that they were executed "not as Spaniards, but as cut-throats and murderers." It was in this expedition that St. Augustine was discovered and named. Other posts were established by Menendez further up the coast, as at cape Canaveral and Port Royal. Menendez returned to Spain, but still controlled the affairs of the new colonies. In 1572 he again visited the western continent and carried his explorations still further. He was recalled and ordered to the command of a fleet to be employed in the war with the Low Countries; but died at Santander while engaged in fitting out his vessels.

MENIER, EMILE-JUSTIN, 1826-81; b. Paris; in early life studied with Arfila, Dumas, and Pelouze, to become versed in the science of chemistry. He established large laboratories at St. Denis, which he freely opened for the use of students and scientific men. In 1859 he founded an annual prize for researches into the nature and properties of drugs, and in 1864 organized a school of practical chemistry, devoting the sum of 10,000 francs to establish lecture-courses on this subject. In the town of Noisiel, he built at his own expense model schools for the entire population, and gave 10,000 francs to be distributed among the school teachers in the different departments of France who reported the largest attendance of scholars. At one time he was at the head of the most important wholesale drug and chemical business in France, situated in the old quartier du Temple, in Paris. Retiring from this business, he undertook the manufacture of chocolate on a grand scale, and laid the foundation for a colossal fortune. He founded his factories at Noisiel, where he established a thriving settlement of pretty and convenient houses for his operatives, with schools, a hospital, baths, and other institutions for health and comfort. His factories eventually reached a trade of \$5,000,000 per annum, and M. Menier became one of the wealthiest men in France. He resided in Paris in a palatial dwelling in the parc Monceaux, where he gathered together a remarkable and highly valuable collection of objects of art and *virtu*. In 1879 he purchased the chateau of Noisiel for the sum of \$2,000,000. He was also the owner in Nicaragua of a section of territory 25 m. sq., and another tract of 6,000 acres on lake Nicaragua. Here were his plantations of cocoa-trees, whose product he made into chocolate at his factories in Noisiel. In 1862 M. Menier was chairman of one of the international juries of the London exhibition; at the Paris exhibition of 1867 he was commissioner for the republics of Nicaragua and Costa Rica. During the Franco-Prussian war he organized an ambulance corps, and was present during several battles, caring personally for the wounded. In 1870 he entered political life, being elected a member of the conseil-general of Seine-et-Marne, and later was returned to the chamber of deputies. He was also one of the few Frenchmen who had been elected members of the Cobden club. M. Menier devoted much of his time and influence during the latter years of his life to establishing closer commercial relations between France and the United States, and was one of the principal promoters of the Franco-American treaty of commerce, which he sought strenuously, by means of intelligent and skillful agents, to render acceptable to the two countries. In this effort he had only been partially successful at the time of his death.

MENIFEE, a co. in e. Kentucky, bounded on the n.e. by the Licking, and s. by the Red river, both tributaries of the Kentucky; 450 sq.m.; pop. '80, 5,410. The surface is hilly and broken, but not unfertile. The chief products are Indian corn, wheat, and oats. Sheep-grazing is a prominent industry. Chief town, Frenchburg.

MENINGITIS (*ante*), inflammation of the meninges. The meninges are the three investing membranes of the brain and spinal cord: the dura-mater, which lines the internal surface of the cavities; the pia-mater, which is in contact with the nervous substance; and the arachnoid, lying between the other two. Meningitis is generally confined to the arachnoid and pia-mater. In the former it is *arachnitis*, and in the latter *pietis*; but in whichever membrane the inflammation commences the diagnosis between the two is either difficult or impossible, and therefore the name *meningitis* is most applicable to either or both. Inflammation of the cerebral meninges is called cerebral meningitis, and that of the spinal meninges, spinal meningitis. When the membranes of both brain and cord are involved, the affection is called cerebro-spinal meningitis. Inflammation of the substance of the brain is *cerebritis*, while inflammation of the spinal cord is *myelitis* (q.v.). *Meningitis* may be arranged under the following heads: 1. Inflammation of the dura-mater, or pachymeningitis. 2. Cerebral meningitis, acute and chronic, including rheumatic meningitis. 3. Tubercular meningitis. 4. Spinal meningitis, acute and chronic. 5. Cerebro-spinal meningitis. 1. *Inflammation of the thick, tough membrane, the dura-mater*, was first described by Virchow under the latter title, and also, in some cases, under that of hematomia of the dura-mater. The inflammation may be on the outer surface of the dura-mater next the osseous substance, but this form is of rare occurrence, and never takes place

except from injuries or osseous growths; it is to the affection attacking the inner surface of the dura-mater—that covered by the outer layer of the arachnoid membrane—to which attention is here called. A principal characteristic is the formation of adventitious membranes, which appear to be repetitions of the arachnoid, resembling it in its spider-web structure, not being false membrane, but having blood-vessels, which after a while rupture and cause extravasation of blood, which collects in cysts, thus constituting the peculiar form called hematoma of the dura-mater. In some cases there are as many as twenty layers of membrane. The extent covered by these cysts varies. They are generally oval, four or five inches long and a half an inch or more in thickness, containing from one ounce to sometimes more than a pound of blood. The brain beneath is, of course, compressed, anæmic, and often softened. The symptoms are, primarily, those of inflammation, and secondarily, those of pressure. The diagnosis is exceedingly difficult, and the termination is usually fatal. 2. *Cerebral meningitis.* Acute cerebral meningitis is not of very common occurrence, but nevertheless of great importance. The inflammation is of the same character as that which attacks other serous membranes—redness, with serum, coagulated fibrine or lymph, and pus; but these products are beneath, and not upon the surface of the arachnoid; in other words, they are deposited in the meshes of the pia-mater. Generally both hemispheres are involved, constituting what is called a bi-lateral affection. Post mortem examination often discloses the existence of serum beneath the arachnoid, but this may follow atrophy or anæmia. The condition most to be relied on is lymph, in sufficient quantity to be seen, or pus. The affection may be caused by injuries to the head, sometimes by exposure to the sun. Indulgence in spirituous liquors is not an infrequent cause. Acute cerebral meningitis sometimes occurs in connection with acute rheumatism of the joints, and is then called rheumatic meningitis and cerebral rheumatism; and it is regarded as being produced by the same causes which produce arthritic rheumatism. Acute meningitis may be mistaken for cerebral congestion, and after recovery in cases where the disease has not passed into the second stage, that of compression, it is often impossible to be certain as to what the affection has been, congestion or inflammation. Typhoid fever has been mistaken for meningitis, when there has been much delirium, but the presence of diarrhea, tenderness and gurgling on pressure in the right iliac region in typhoid fever, and the continuance of delirium in the latter affection, are sufficient to mark the distinction. Acute mania has some symptoms like those of acute meningitis, but there is not that morbid acuteness of the senses; moreover, in mania, fever and the symptoms of compression do not follow the delirium. Acute meningitis is a very dangerous disease, some cases ending fatally in 36 hours; but the fatal cases rarely extend beyond 9 days. The most unfavorable symptoms are coma (q.v.), difficulty of swallowing, feebleness of pulse, and want of nervous sensibility (anæsthesia). Recovery frequently takes place after there has been strabismus (see SQUINTING, *ante*), paralysis, and convulsions, but as a rule more than half of the cases terminate fatally.

Chronic cerebral meningitis, unconnected with a tuberculous condition, is not of frequent occurrence, although not so rare as the acute form. In most instances it is a sub-acute affection from the commencement, and is very insidious in its character, the symptoms being such as not to strongly attract attention. There is pain in the head, but not usually violent, and the febrile symptoms are unimportant. Vomiting is common, but as all these symptoms accompany other diseases, it is difficult to make the distinction. There is often a degree of stupidity or apathy, accompanied by irritability when aroused, and which, taken in connection with all the other symptoms and the circumstances attending the inception of the disease, furnish to the experienced practitioner data for forming in most cases a correct judgment. 3. *Tuberculous meningitis.* The recognition of this form of meningitis is due to Guersaut in 1823, and Gerhard and Ruzf in 1833. Post-mortem examination reveals usually at the base of the brain beneath the arachnoid a fibrinous exudation, covering the pons-varolii, optic commissures and cerebellum; but the most prominent feature is the presence of numerous minute granulations having the appearance of gray tubercles, such as are found in the lungs and spleen in tuberculosis. These miliary tubercles, as they are called, are in the tract of the cerebral vessels, and according to Bastian and others within sheaths which are peculiar to the blood-vessels of the brain, and called perivascular sheaths, because surrounding the blood-vessels. (These perivascular sheaths are also found in the liver, q.v.). The symptoms are somewhat intermediate between those of acute and chronic simple meningitis, but the affection is frequently preceded by signs of tubercles in the lungs. It generally attacks children between 2 and 7 years of age, rarely appearing during the first year, but it is not confined to childhood. It usually commences with pain in the head, generally in the forehead. Vomiting is a frequent and early symptom, and there is more fever than in simple chronic meningitis. Remissions usually take place daily, with increased symptoms during the night. Sometimes the headache is very severe, attended by a short, sharp cry which has been called the “cephalic cry.” There is great sensibility to light and sound. The pupils, in this the first stage, are contracted, and the conjunctiva suffused. A prominent symptom is the flushed face which comes on in paroxysms, often preceding convulsions. In the second stage there is drowsiness and less headache, although lancinating pains often occur. The pulse becomes less frequent, sometimes falling below the natural standard, and is often fluctuating and irregular.

The respiration also becomes irregular. The pupils are dilated, and not infrequently unequal in size. Strabismus and oscillation of the eyeballs sometimes occur, and the patient often lies with the lids partially or widely open. There is often paralysis of one side of the face, and sometimes, more or less, of one side of the body. The muscles of the back of the neck often have tonic contractions, and there are sometimes contractions of the muscles of the limbs. There is almost always obstinate constipation in consequence of the sluggish and deranged condition of the nervous system, and there is generally retention of urine. The duration varies from 1 to 3 weeks and is almost invariably, some say invariably, fatal. 4. *Spinal meningitis*. This disease, like cerebral meningitis, may be acute or chronic, and it is also rare; excluding cases arising from injury, even more rare than the cerebral affection. The pathological conditions are similar to those in cerebral meningitis, but the symptoms are somewhat different, owing to effects manifested through the spinal nerves. Pain is felt in the spine, passing to the extremities, and it is increased by movements of the body more than by pressure over the spinal column, and there is great increase of sensibility of the surface of the body. The pain is referable to the posterior roots of the cord. Muscular contractions are referable to excitation by the disease of the anterior roots, sometimes causing the bending of the body backwards, producing the condition known as opisthotonos (q.v.). Sometimes the thoracic muscles are the subject of tonic spasm, causing great difficulty of breathing (dyspnœa). These are the early symptoms; subsequently paralysis and other symptoms follow, constituting the second stage. Acute spinal meningitis is rapid in its course, generally terminating fatally within 8 or 10 days. Asphyxia is the usual mode of death, in consequence of spasm of the respiratory muscles, or, more frequently perhaps, from paralysis of the respiratory nerves.

5. *Cerebro-spinal Meningitis*. This disease usually occurs as an epidemic, idiopathic cases being very rare. The epidemic form is a consequence of blood poisoning, and is a very dangerous affection which has sometimes extensively prevailed in different parts of the United States and Europe. It has sometimes received the name of spotted fever in consequence of the appearance of certain spots upon the skin in the course of the attack, but the spots are not constant accompaniments. The latter name was applied to an epidemic which prevailed in New England between the years 1807 and 1816, from the symptoms of which, as described, there is scarcely any doubt it was what is now called cerebro-spinal meningitis. This disease has been considered by some as a variety of typhus fever, but its greater suddenness and the absence of the characteristic mulberry rash of typhus prevent the general adoption of this view. The disease is usually ushered in with a chill followed by violent headache, vertigo, vomiting, and muscular rigidity passing into tetanus. There is here also, as in the other acute meningeal affections, increased sensitiveness of the skin; the face is pale, the pupils contracted, and the conjunctiva red. There is delirium, and usually as early as the second day in the more severe cases the extensor muscles of the neck and back are strongly contracted. The delirium soon passes into coma. According to Wunderlich there are three forms. In the first, the most rapidly fatal, the temperature rises at the approach of death to 108° F. and continues to rise for some hours after death. In the second form the fever has an irregular course and short duration. The third form is protracted and with great variations in temperature. In the commencement of an attack of cerebro-spinal meningitis the pulse is often slower than in health, but sometimes is more frequent. It increases with the disease, but generally does not exceed 100 beats per minute till towards the fatal termination, when it became very frequent. Headache is one of the most prominent symptoms. It was wanting in only one of 64 cases analyzed by Ames. The pain is intense, lancinating, and may be seated in the forehead, occiput, or the whole head. It is increased by noise, light, and the motions of the body, and is persistent. There is usually pain also in the spine, but not always throughout its whole length, and the probability is that the pain corresponds in location with the seats of the inflammation. In the less severe cases the delirium is rather slower in being developed, and varies much in intensity. At first the patient appears stupid, and sometimes remains so, but often becomes wildly delirious, and struggles with his attendants. As a rule there is obstinate constipation in consequence of the semi-paralyzed or deranged condition of the nervous system. The tongue varies in appearance, sometimes being large and flabby, and showing marks made by the teeth. As the disease progresses it becomes dry and dark. Petechial spots are frequently observed, but they are not constant, and accompanying some epidemics more than others. They vary in size from a pin's head to a quarter of an inch or more, and are regarded as being due to an extravasation of hematine. They are of the nature of the ecchymoses which occur in scorbutus, purpura, and some cases of continued fever, and do not constitute a specific eruption. According to Tourdes, however, a rose-colored papular eruption, resembling that of typhoid fever, sometimes appears. The duration of the disease varies. Of fatal cases observed by Tourdes the shortest duration was 20 hours. Ames states the shortest duration to be 15 hours. The longest duration of fatal cases is stated by Tourdes to be 100 days. Of 160 cases analyzed by Dr. S. B. Hunt 12 died within the first 24 hours; 92 died before the end of the fifth day; 14 before the end of the tenth; 4 before the end of the fifteenth, and 18 survived for shorter or longer periods. Some writers regard the disease as belonging to the class of fevers instead of primarily to the nervous system, and this is probably the correct view. Boudin, in 1849, proposed to call it

cerebro-spinal typhus. It attacks all ages, but the larger number of cases occur between 20 and 30 years, and the liability is rather small before 7 years. Males are more frequently the subjects than females, but the difference is not great. It prevails more in the winter and spring than during the summer. It is stated to be a disease of confined quarters, such as barracks and prisons. From 1837 to 1842 it prevailed in most of the crowded barracks of France, and has been a frequent visitor of the galley slaves at Toulon.

MENNONITES, deriving their name from Simón Menno, are claimed by some Baptists as their predecessors, coming down directly from the Waldenses; but this claim is denied generally by other Protestant denominations, who regard the Mennonites simply as the followers of Menno, who, in the 16th c. drew together the better class of the Anabaptists under new rules, and expounded to them the principles of revealed truth. As thus instructed they professed belief in the personal reign of Christ on the earth during the millennium; in the unlawfulness of oaths, of war—even in resisting violence and wrong,—of lawsuits, and of allowing civil magistrates to be members of the church. All immoral practices they, as a denomination, condemned; and in their own conduct were exemplary, prudent, and devout. So far from being guilty of the excesses which have made the name Anabaptists odious, they are numbered by some writers among the best Christians which the church ever knew, and the best citizens which the state ever had. Menno, in order to unite his followers together, separated them from all other Dutch and German Protestants and gave them a regular system of church order. His statements of doctrine were so explained and modified that they resembled strongly the general system of the reformed churches, and thus greatly promoted the growth and influence of his followers. The stringent discipline which he maintained soon produced divisions in the flock. The parties formed were known by various names, as the fine and the coarse, denoting different degrees of strictness in discipline, the Flandrians and Waterlanders, named from the districts in which the disputants lived; the orthodox—called from their leader, Dr. Samuel Apostool, Apostoolians—and the remonstrants were divided in their views concerning vital doctrines.

I. THE DUTCH MENNONITES. William, prince of Orange granted the Mennonites a settlement in the United Provinces near the end of the 16th century. In 1626 their confession of faith was published; in 1626 an association was formed among them, and was strengthened in 1649, which in its organization resembled in some respects that of the present Congregationalists in the United States. As a result of this fellowship some of the rigorous rules of Menno and his successors were softened and improved. Each congregation chose its own pastor who was called an exhorter, and, not being supported by his people, provided for himself in the best way he could by engaging in business or trade. Where no pastor could be obtained, the deacon and deaconess ministered respectively to the men and women. In the 17th and 18th c. persecution drove many of the Mennonites from Germany and Switzerland to Holland, so that at one time the denomination, in what they regard as their parent country, contained at least 160,000 persons. In 1735 their theological seminary was established at Amsterdam, the students of which receive instruction in a part of the chapel that also contains the library. A knowledge of Latin and Greek is a necessary qualification for admission; the lectures are in Latin, and instruction is provided in Hebrew, church history, physics, moral philosophy, and kindred studies. This institution was at first supported by contributions obtained in Amsterdam alone, but now churches in other places also send aid. All the students have the ministry in view, and some of them receive aid from a public fund. The educated ministry thus provided has made the denomination respectable among other Protestants, and has raised up theologians that are highly esteemed. In 1795 they obtained equality in law among other Protestants, and have since gradually formed themselves into one national body. In 1811 they united in forming a society to promote theological education. A foreign missionary society also receives general support.

II. The Mennonites were numerous in Germany in the 17th century. In Moravia alone they amounted to 70,000. In 1622 they were expelled by Ferdinand II., and after a brief sojourn in Hungary and Transylvania removed to Russia. They were very numerous in eastern Prussia, especially at Dantzic, Marienburg, and Elbing, where their cleanliness and industry soon transformed desolate marsh grounds into gardens. But persecution compelled many of them to flee until after 1732, when the king removed some restrictions from them, so that they gradually increased again in numbers until 1789, when the right to acquire property in land was taken away, yet with all their hindrances they have maintained themselves in some parts of Prussia and have especially made the valley of the Vistula “the garden spot of the land.”

III. In 1786 Catharine II. invited the Mennonites to settle in Russia with other German emigrants, and between that time and the close of the century about 350 families found there a home, on and near the island of Khortiz, in the lower Dnieper. The privileges pledged to them were: Protection from all attacks; freedom of worship; a gift of 190 acres of land for each family; exemption from taxation for ten years; money for their journey; money and wood with which to establish themselves; freedom of trade and manufactures; the administration of oaths in their own way, and perpetual exemption from military service. These great advantages induced a large and constant Mennonite

immigration into Russia until 1817, the new colonists settling near their brethren in the government of Taurid, and between the rivers Molotchua, Dnieper, and Tokmak; and from that time they continued to increase in numbers and prosperity. They were always protected and favored by the government, and, chiefly through the character and efforts of Johann Cornies, preserved uninjured their German institutions and habits. This remarkable man, without office or rank, though both were once and again offered him by the government, exerted a very great influence over his countrymen and over the government in their behalf. Through his efforts, besides having their own schools and churches, and retaining their native language and ways of living, they enjoyed also a kind of popular government among themselves; each group of towns being under a magistrate chosen by themselves from among themselves, and forming the organ of communication between them and the imperial government. In 1861 the late emperor, Alexander II., gave new lands and confirmed all the old concessions to a colony of Mennonites who established themselves on the Volga. These lands, indeed, as well as those which Catharine had given, were not altogether without restriction. The holders could bequeath them to their children or sell them to any of their own community, but could not part with them to any one except a Mennonite unless by express permission from the government. But within the last decade the conduct of the imperial government towards this community as well as towards other colonists has been greatly changed. In June, 1871, an edict, addressed to all the colonists in the empire—German Lutherans and Roman Catholics, as well as Mennonites, Bulgarians, and others to whom lands and privileges had been given—limited the period of exemption from military service to ten years, with the proviso that, as to furnishing recruits, the laws ruling colonists should continue in force only till the publication of a general law on military duty. As such a law might be issued at any time, the Mennonites, with the rest, might be compelled to furnish recruits, notwithstanding their belief in the unlawfulness of war. The general law of Russia does not allow emigration, but in this instance ten years were allowed for any to leave the empire who were unwilling to comply fully with the laws. Inquiries were at once commenced by some of the leading Mennonites concerning the best location for a new home. Many answers highly favorable having been received from several parts of the United States and Canada, and circulated widely among the people, the sum of \$20,000 was raised by their voluntary contributions to send a delegation to visit the most promising regions of America and report the result of their observations on their return.

IV. The first Mennonites came to the United States in 1683, influenced doubtless by the sentiments which the society of Friends held in common with them, William Penn invited them to settle in his new province of Pennsylvania. Accepting the kind offer, 500 families within half a century made there their homes. In 1708 they built a school and church in Germantown. In the following year another colony settled in what is now Lancaster county, and was strengthened by other families in several successive years, so that in 1735, 500 families were found in that county alone. Afterwards their descendants emigrated to various places in Maryland, Ohio, New York, Indiana, and Canada. At the present time, while they are most numerous in the states already mentioned, some of them are found in nearly every part of the land. The results of the visit of the Russian delegation are very apparent in the arrival of large numbers of families who have bought lands on the prairies of the west and in the southern states; and they, probably, are the advance guard of all the Russian Mennonites. As they do not publish their statistics, accurate statements concerning their numbers cannot be made. They have a publishing house at Elkhart, Ind. Their bishops, ministers, and deacons are all chosen by lot and meet semi-annually in district conferences. Their pastors give their services gratuitously. Their confession of faith was translated and published at Philadelphia in 1727. Besides the main body of the denomination there are in America: 1. The *Reformed*, or strict Mennonites, who in 1811 seceded from the rest and profess to maintain strictly the discipline of Simon Menno. 2. The *New Mennonites* organized in 1847 by about a dozen ministers of the old denomination. 3. The *Evangelical Mennonites*, who in 1856 seceded from the previous secession. 4. The *Amish Mennonites*, who greatly resemble the Reformed, and are sometimes called Hookers, because they substitute hooks for buttons on their clothes. They concern themselves but little in political matters, sometimes voting at elections when school officers are to be chosen. They have no denominational schools or religious paper, but send their children to the public schools and depend for religious literature on the regular Mennonites. See ANABAPTISTS; MENNO; *ante*.

MENOBANCHIUS, PROTEUS OF THE LAKES, or FISH LIZARD, a genus of batrachians belonging to the division of perenibranchiate amphibia of the order amphipneusta, which also includes the European proteus. See PROTEUS, *ante*, the axolotl (q.v.), amphiuma (q.v.), siren (q.v.), menophome (q.v.) The menobranthus has a large head and mouth; both upper jaw and palate armed with small sharp teeth; three branchial tufts on each side of the short neck; tail compressed laterally and fringed with a membrane; four limbs, each four-toed, the toes having no nails; small eyes without lids; large tongue, movable only at tip; nostrils small and near the lip, which is fleshy; body long and covered with a smooth skin. The most common species is *M. maculatus*, or

spotted menobranch, which has an ashy gray color with darker spots and a brown stripe extending from the snout over the eyes. It inhabits the great lakes of North America and lake Champlain. Another species, *M. lateralis*, is dark brown above, and it has dark bands extending from the nostrils through the eyes and along the sides to the tail; the color of the belly is a dirty reddish brown, and the body is more slender than in *M. maculatus*. It is found in the Ohio river and other tributaries of the Mississippi on the eastern side, from Pennsylvania to Tennessee.

MENOMINEE, a co. in the s.w. part of the upper peninsula of Michigan; bounded s.e. by Green bay, and s.w. in its entire extent by Menominee river, which separates it from Wisconsin; drained also by Cedar river; 1350 sq.m.; pop. '70, 1791. It is traversed by the Chicago and Northwestern railroad. The surface is uneven and covered with extensive pine forests. The climate is cold. Lumber is the chief export, and there are four large saw-mills in operation. A great part of the population are engaged in iron mines and marble quarries. Chief town, Menominee.

MENOMONEE, a t., the co. seat of Dunn co., Wisconsin; on the Red Cedar river and on the West Wisconsin railroad; 25 m. n.w. of Eau Claire, and 42 m. n.e. of Red Wing, Minn.; pop. 3,433. There is a large trade in lumber and in furs; several carriage and machine shops, a sash factory and several brick yards. The town has the county court-house, 2 excellent public schools, 7 churches, and there are two weekly papers.

MENOMONEES, or MENOMINEES, a tribe of Indians first described near the Menominee river in Wisconsin, which empties into Green bay. The name, both of the river and the tribe, is synonymous with wild rice, which is found in great abundance near the mouth of the river, and was an important part of their food. Fathers Allouez and André established a mission among them in 1670, and describe them as lighter in complexion than the neighboring tribes. They remained allies of France in the wars with the English, aided in the relief of Detroit in 1712, and were a part of the French-Indian forces until the time of the revolutionary war, when a part of the tribe went over to the English. In the war of 1812 they again were with the English, and aided in the capture of Mackinaw that year, and under their chief Souigny formed a part of the Indian force in command of the great chief Tecumseh at the siege of fort Meigs, on the Maumee, in 1813, and of the party repulsed by col. Croghan at Sandusky about the same time. Mar. 30, 1817, their chiefs by treaty ceded grants of land to Clarke, Edwards, and Choteau. Successive treaties were made between them and the U. S. government in 1825, 1827, 1831, 1836, 1848, 1852, and 1854. By the last they are in possession of a reservation on the upper Wolf and Oconto rivers in Wisconsin, 50 m from Green bay, containing 240,400 acres. Their numbers decrease rapidly; in 1822 estimated, 3,900; in 1872, 1480. The Menomonees are one of the Algonquin tribes.

MENSES. See MENSTRUATION, *ante*.

MEN'SHIKOFF, or MENSCHIKOFF. See MENCHIKOW, or MENCHIKOFF, *ante*.

MENTAL PHILOSOPHY. See MIND.

MENTANA, BATTLE OF, Nov. 3, 1867. On Oct. 28 and 29 a detachment of French troops, under gen. de Failly, landed at Civita Vecchia, a seaport town of Italy. Garibaldi, who was before the Roman gate of St. Jean, had defeated the pontifical troops at Monte Rotondo, 17 m. n.w. of Rome, with 4 battalions of volunteers; and, proposing to gain possession of Rome and join the papal states to the kingdom of Italy, was intending to proceed there forthwith, but hearing of the approach of the French brigade he fell back to Monte Rotondo and Mentana, in order to raise defenses. On Nov. 2 he advanced in 2 detachments, one toward Correse and one toward Tivoli. The Tivoli column, meeting the French troops, 2,000 men under Kanzlar and Polhès, led by 3,000 of the pontifical troops, fell back to Mentana, 13 m. n.e. of Rome; were pursued by the enemy; and on Sunday, Nov. 3, an engagement of 4 hours followed, ending in the defeat of the volunteers. The French in this battle made the first trial of the Chassepot gun; their troops were regulars thoroughly drilled and disciplined, and the loss on the other side was heavy and crushing. Garibaldi had undisciplined, poorly armed recruits; infantry only. With the conquering army in front, they crossed the Italian frontier, to find the Italian army in the rear, which overwhelmed them, seized their arms, and took many of them prisoners; among them Garibaldi, who was arrested at Correse on his journey to Caprera, and imprisoned in the fortress of Varignano, near Spezzia, an island of Greece; and the Italian troops retired from the papal states. Garibaldi, protesting against this treatment, claiming the protection due to an American citizen and an Italian deputy, was set at liberty on the 26th. To commemorate this victory a medal was struck by order of the pope, in the shape of a cross, made of silver, and presented to all who took part in the battle. It bore the inscription, *Fidei et Virtuti*, and *Hinc Victoria*. A monument to the Garibaldians who fell at this battle was dedicated Nov. 25, 1877.

MEN'TCHIKOF, MENTSCHIKOFF, or MENZIKOFF. See MENCHIKOW or MENCHIKOFF, *ante*.

MENTONE (*ante*) is celebrated for its bone caves, which are situated upon the e. bay. They are about 90 ft. above the Mediterranean, formed by rifts in the Roches Rouges mountain, and have furnished interesting pre-historic fossils and implements.

In the spring of 1872 a fossil human skeleton was found in one of these caves, buried 21½ ft. beneath the surface. The skull is said to have had shells upon it, as if the head had been ornamented with them, and the teeth of the stag, these articles being "perforated and forming a net-work about the head." How the net-work was retained in position it is impossible to say with certainty. The cranium was fractured before and behind, so that no perfect measurement could be made. It belongs to the long-headed, or dolichocephalic, branch of the human family, and is said to have a facial angle of 85°. The height of the figure is estimated to have been 6 feet.

MENTOR, a village and township of Lake co., Ohio; 23 m. n.e. of Cleveland on the Lake Shore railroad; the township extends to the shore of lake Erie; pop. '70, 1666. There are two churches and a graded school. The people are almost all engaged in agriculture and country trade. This little town is noted as having been for some years the residence of gen. James A. Garfield, elected in 1880 president of the United States.

MENTZ. See MAINZ, *ante*.

MEPHISTOPHELES, one of the seven chief devils in the old demonology; the second of the fallen archangels, and the most powerful of the infernal legions after Satan. He figures in the old legend of Dr. Faustus as the familiar spirit of that renowned magician, and his name was commonly used as a term of jocular reproach. To modern readers he is chiefly known as the cold, scoffing, relentless fiend of Goethe's *Faust*, and the attendant demon in Marlowe's *Faustus*.

MERCADANTE, SAVERIO, 1797-1870; b. Altamura. He studied the violin and the flute under Zingarelli at the conservatorio San Sebastiano at Naples, but soon turned his attention to compositions for the voice, at the earnest solicitation of his master. In 1818 he produced a grand cantata, entitled *L'Unione delle Belli Arti*, which was performed at the Teatro Fondo, and met with a very favorable reception. This led to an engagement at the Teatro San Carlo, where his first opera, *L'Apoteosi d'Ercole*, was well received. After this he composed a great number of operas; but many of them were not successful. In 1833 he was appointed chapel master at the cathedral of Novara. In 1836 his opera, *I Briganti*, was performed in Paris, but proved a complete failure, in spite of the extraordinary cast of Rubini, Tamburino, Lablache, and Grisi. He was made director of the royal conservatory at Naples in 1840, but became totally blind in 1862. Though his compositions are vivacious and graceful, his opera *Il Giuramento* and some of his sacred pieces are all that have survived him.

MERCAPTAN and MERCAPTANS, a class of compounds discovered by Zeise in 1833. The name is a contraction of *mercurio corpus aptum*, given on account of its powerful reactions with compounds of mercury, Zeise's original mercaptan is ethyl hydrosulphide, C_2H_5SH . It is the sulphur analogue of ethyl alcohol, and is produced by the action of hydrosulphide of potassium on ethyl sulphate of calcium. A solution of caustic potash of sp. gr. 1.3 is saturated with sulphureted hydrogen gas and mixed in a retort with an equal volume of solution of ethyl sulphate of calcium of the same density. The retort is connected with a condenser and heated by a bath of salt and water. Mercaptan and water are distilled together, and may be separated by decantation or by a tap funnel, the sp. gr. of mercaptan being 0.8325 at 69.8° F. and only slightly soluble in water. It boils at 96.8° F. giving off a vapor having an intolerable odor of onions, which adheres to the clothing with great obstinacy. It is very inflammable, giving a blue flame. In contact with red oxide of mercury, even in the cold, mercaptan causes a violent reaction with the formation of water and a white substance soluble in alcohol, and separating from the solution in crystals having the formula $Hg(SC_2H_5)_2$.

MERCATOR, GERARD, 1512-94; b. Flanders; the name is a Latinized form of his real name, Kauffman, i.e., merchant. Having finished his elementary education at Bois-le-Duc he studied and took a degree in philosophy at the university of Louvain. After leaving the university, he made a profound study of the sciences of geography and mathematics, and in 1559 was appointed cosmographer to the duke of Juliers. His name is perpetuated by the projection used in nautical maps, in which the meridians are represented by parallel lines, and parallels of latitude by straight lines intersecting the meridians at right angles. The projection, however, seems to have been applied to nautical maps by Edward Wright. Besides a large number of maps, Mercator compiled a chronological table under the name of *Chronologia a Mundi Exordio ad annum 1556*; and a series of geographical tables, *Tabule Geographice ad Mentem Ptolemaei Restitute*. He also wrote two theological treatises, one a *Harmony of the Gospels*, and the other, which was condemned by the church, a work on the *Creation of the World*.

MERCED', a co. in California, extending n.e. from the main coast range, traversed by the San Joaquin river, and by the Visalia division of the Central Pacific railroad; 1680 sq.m.; pop. 2,807. Cattle, wheat, wool, and fruit are the chief products; brandy and wine are the principal manufactures. Capital, Snelling.

MERCER, a co. in n.w. part of Dakota, adjoining Missouri on the n. and e.; 9,000 sq.m.; pop. not enumerated in 1870; in 1880 the census states that it is combined with Billings, Morton, and Stark cos.; total pop., 1563. It is drained by the Big Knife and

other branches of the Missouri river. The surface is rolling and capable of cultivation, but at present the locality is sparsely settled and there is little trade or agriculture.

MERCER, a co. of n.w. Illinois, bounded w. by the Mississippi river, and traversed by the Chicago, Burlington, and Quincy, and the Rockford, Rock Island and St. Louis railroads; 540 sq.m.; pop. '80, 19,505. The surface is rolling, the soil fertile. Live stock, grain, and wool are the principal products. Coal is mined in various places. Carriages and wagons are the chief articles of manufacture. Capital, Aledo.

MERCER, a co. in the blue-grass region of Kentucky, near the center of the state, and bounded n.e. by the Ohio river; 308 sq.m.; pop. '80, 14,141. Live stock, wheat, corn, and wool are the chief productions. Capital, Harrodsburg.

MERCER, a co. of Missouri, bounded n. by Iowa, and traversed by the south-west division of the Chicago, Rock Island and Pacific railroad; 480 sq.m.; pop. '80, 14,674. It is well timbered, with a fertile soil, containing deposits of iron, copper, and coal. Cattle, grain, and wool are among the chief products. Capital, Princeton.

MERCER, a co. of New Jersey, bounded s.w. by the Delaware river, and traversed by the Camden and Amboy, the New Jersey, the Belvidere, Delaware, and other railroads; about 220 sq.m.; pop. '80, 58,058. The surface is generally level, the soil very fertile and well cultivated. The principal productions are live stock, wool, grain, tobacco, hay, fruit, and garden products. The manufacturing interests include iron, iron castings, stone, earthen and metallic wares, carriages, clothing, woolen goods, flour, etc. Capital, Trenton.

MERCER, a co. in Ohio, bounded on the w. by Indiana; 470 sq.m.; pop. '80, 21,808. The great canal reservoir, probably the largest artificial lake in the world, is nearly all in this county. It is 8 m. in length, $3\frac{1}{2}$ in width, and 10 ft. deep, and covers an area of 17,000 acres. Its waters feed the Miami canal. The chief productions of the county are cattle, grain, and wool. Coal is mined to a considerable extent, and bricks and timber are extensively manufactured. Capital, Celina.

MERCER, a co. of Pennsylvania, bounded w. by Ohio, and traversed by the Atlantic and Great Western, the Erie and Pittsburg, the Jamestown and Franklin, and the Shenango and Allegheny railroads; 600 sq.m.; pop. 49,977. The surface is uneven, the soil very fertile. Coal is abundant; chief productions, live stock, grain, and wool. There are manufactures of leather, lumber, flour, carriages, iron, and iron castings. Capital, Mercer.

MERCER, a co. of West Virginia, bounded s. by Virginia, and lying between Great Flat-top mountain on the n.w., and East River mountain on the s.e.; 450 sq.m.; pop. '80, 7,467. It is a well-timbered region, with a fertile soil, containing deposits of coal and limestone. Capital, Princeton.

MERCER, CHARLES FENTON, LL.D., 1778-1858; b. Fredericksburg, Va.; graduated at Princeton in 1797; in 1798, in anticipation of a war with France, he was commissioned by Washington as capt. of cavalry; studied law, and in 1802-3 traveled in Europe; was aid-de-camp to the governor of Virginia during the war of 1812; commanded the defenses of Norfolk in 1813, with the rank of brig.gen.; was a member of the legislature from 1810 to 1817, and chairman of the committee of finance in 1816, when he introduced the bill to incorporate the Chesapeake and Ohio canal company; was elected to congress as a federalist in 1816, and remained a member of that body until 1840. In 1853 he visited Europe, and conferred with leading men of different countries in regard to measures for the complete abolition of the foreign slave-trade. He was a leading advocate of the protection of home manufactures. Died at Howard, near Alexandria.

MERCER, HUGH, 1721-77; b. in Aberdeen, Scotland; educated at the university there; entered the medical profession, and served as assistant-surgeon in the army of prince Charles Edward, the "young pretender," in 1743. The insurrection proving a failure, he emigrated to America in 1747, settling as a physician near the present town of Mercersburg, Penn. He served as a volunteer in Braddock's campaign, was appointed capt., and so severely wounded in the battle on the Monongahela that he was unable to keep up with the other fugitives from that disastrous field, wandered for several weeks alone in the forest, until at last he reached fort Cumberland, 100 m. from the point of departure. For his courage in this expedition he received a medal from the city of Philadelphia. In 1758 he was promoted to the rank of lieut.col., accompanied gen. Forbes to fort Duquesne, now Pittsburg, and commanded the post for some time. After this he settled as a physician in Fredericksburg, Va., but entered zealously into the revolutionary conflict. He organized and drilled the minute-men of Virginia in 1775, and the militia in 1776, and at Washington's request was chosen a brig.gen. by congress, June 5, 1776. He commanded a column in the attack on Trenton, and led the advance in the night march on Princeton, which he had himself advised. Early in the battle there he was mortally wounded and left for dead on the field. Being discovered alive, he was taken to a neighboring farm-house, where he expired in the arms of maj. Lewis, his aid-de-camp. His funeral in Philadelphia is said to have been attended by 30,000

people, and a monument to his memory was erected at Laurel Hill cemetery in 1840. His son, HUGH, was educated at the expense of the nation.

MERCER, JESSE, 1763-1841; b. Halifax co., N. C. After removing to Georgia he was ordained to the ministry in the Baptist denomination, and became pastor of a church in Wilkes co. in 1789. He was a popular and useful preacher. He took a prominent part in the constitutional convention in 1798. He founded an institution named Mercer university, which at first was at Pennfield, but was removed to Macon, Ga., and is prosperous. He published a collection of hymns entitled *Mercer's Cluster*, generally used in the southern Baptist churches; *History of the Georgia Baptist Association*; and edited for several years the *Christian Index* of Georgia.

MERCER, JOHN FRANCIS, 1758-1821; b. Va.; educated at William and Mary college; served in the continental congress 1782-85, and was a delegate from Maryland to the convention which formed the federal constitution, which he refused to sign. He was a member of congress from Maryland 1792-94, and governor of that state 1801-3. He also served in the state legislature.

MERCERSBURG, a borough in Franklin co., Penn., at the terminus of a branch of the Cumberland Valley railroad, 15 m. s.w. from Chambersburg, and 62 m. s.w. from Harrisburg. The theological seminary of the German Reformed church, commenced at Carlisle, Penn., in 1825 and removed to York four years later, was, in 1835, located at Mercersburg, where it continued until its removal in 1871 to Lancaster. The high school, commenced by the same denomination at York in 1830, was removed to Mercersburg in 1835; and having, under a charter from the state, become Marshall college, remained there until 1853, when it was removed to Lancaster and combined with Franklin college under the name of Franklin and Marshall college. Mercersburg college was organized 1865, under the care of the German Reformed church, and the theological department was added in 1872.

MERCERSBURG THEOLOGY is the name given to a philosophical representation of Christian doctrine emanating from the theological seminary of the German Reformed church formerly located at Mercersburg, Penn., and especially from Dr. John W. Nevin, one of the professors there. Critical students of theology regard it as presenting substantially Schleiermacher's views modified by American habits of thought and by faith in the inspiration of the Scriptures. It has its starting point in a peculiar psychological theory concerning the person of Christ and the nature of man. This theory determines the views expressed—

I. *Concerning the person of Christ.* Dr. Nevin says that he had not one life of the body and another of the soul; nor one life of his humanity and another of his divinity. It is one life throughout, and it is in all respects a true human life. Christ is the archetypal man in whom the true idea of humanity is brought to view. He is the ideal man in whom only human nature is complete. The writers of the *Mercersburg Review* teach that the incarnation is the proper completion of humanity and that the glorification of Christ was the full advancement of our human nature itself to the power of a divine life.

II. *Concerning human nature.* "The world in its lower view is not simply the outward theater or stage on which man is set to act his part as a candidate for heaven. In the widest of its different forms of existence it is pervaded throughout with the power of a single life, which comes ultimately to its full sense and force only in the human person." The world is an organic whole which completes itself in man; and humanity is regarded throughout as a single grand fact which is brought to pass not at once, but in the way of history, unfolding always more its true interior sense, and reaching on to its final consummation. It is a universal property of life to unfold itself from within, by a self-organizing power, towards a certain end, which end is its own realization, or, in other words, the actual exhibition and actualization in outward form of all the elements, functions, powers, and capacities which potentially it includes. Thus life may be said to be all at its commencement which it can become in the end. Humanity is defined to be a generic life. Man is the manifestation of this generic life in connection with a special corporeal organization, by which it is individualized and becomes personal. It was this generic humanity which sinned in Adam, and thenceforth was corrupt in all the individual men in whom it was manifested. It was this generic humanity which Christ assumed into personal union with his divinity, not as two distinct substances, but so united as to become one generic human life. This purified humanity now develops itself by an inward force in the church, just as from Adam generic humanity was developed in his posterity. It is still, however, assumed as the fundamental idea of the gospel that God and man in Christ are one. This generic humanity is only a form of the life of God. And as to its sinning in Adam, and being thenceforth corrupt, sin and corruption are only imperfect development. God, the universal life principle, as Dr. Nevin calls it, so variously manifested in the different existences of this world, is imperfectly or insufficiently manifested in man generally, but perfectly in Christ, and through him ultimately in like perfection in his people.

III. *Concerning justification.* Dr. Nevin says: "Our nature reaches after a true and real union with the nature of God as the necessary complement and consummation of its own life. The idea which it embodies can never be fully actualized under any other form. The incarnation is the proper completion of humanity. Christ is the true ideal

man. The word became flesh—not a single man only as one among many, but ‘flesh’ or humanity in its universal conception. How else could he be the principle of a general life, the origin of a new order of existence for the human world as such? How else could the value of his mediatorial work be made over to us in a real way, by a true imputation, and not a legal fiction only?” “Christianity is a life, not only as revealed at first in Christ, but as continued also in the church. It flows over from Christ to his people, always in this form. They do not simply bear his name and acknowledge his doctrine. They are so united to him as to have part in the substance of his life itself.” “By the hypostatical union of the two natures in the person of Jesus Christ, our humanity as fallen in Adam was exalted again to a new and imperishable divine life.” “The object of the incarnation was to couple the human nature in real union with the logos as a permanent source of life.” “The new life of which Christ is the source and organic principle is in all respects a true human life;” “not a new humanity, wholly dis severed from that of Adam, but the humanity of Adam itself, only raised to a higher character, and filled with new meaning and power, by its union with the divine nature.” “Christ’s life, as now described, rests not in his separate person, but passes over to his people.” He communicates his own life substantially to the soul on which he acts, causing it to grow into his very nature. “This is the mystical union, the basis of our whole salvation; the only medium by which it is possible for us to have an interest in the grace of Christ under any other view.” With his substance, his life, his divine human nature, thus communicated to the soul, come his merit, his holiness, his power, his glory. These are predicates of the nature which becomes ours, constituting our personal life and character. Even the resurrection is to be effected, not by the power of Christ operating *ab extra*, as when he raised Lazarus from the dead, but by a new divine element.

“The fall of Adam was the fall of the race; not simply because he represented the race, but because the race was comprehended in his person. Sin in him was sin incorporated with the inmost life of humanity, and became from this point onward an insurmountable law in the progress of its development.” It was “an organic ruin, the ruin of our nature; not simply because all men are sinners, but as making all men to be sinners. The human race is not a sand heap; it is the power of a single life. Adam’s sin is therefore our sin. It is imputed to us, indeed, but only because it is ours. A fallen life in the first place, and on the ground of this only, imputed guilt and condemnation. In order then that the race might be saved, it was necessary that a work should be wrought not beyond it, but in it. Our nature, humanity, must be healed, the power of sin, incorporated in that nature, must be destroyed. For this purpose the logos, the divine word, took our humanity into personal union with himself. As the bearer of a fallen humanity he must descend with it to the lowest depths of sorrow and pain. He triumphed over the evil; his passion was the world’s spiritual crisis in which the principle of health came to its last struggle with the principle of disease and gained the victory. This was the atonement. When Christ died and rose, humanity died and rose in his person. Our nature was thus restored and elevated, and by receiving this renovated nature we are saved. Christ’s merits are inseparable from his nature; they cannot be imputed to us, except so far as they are immanent in us. As in the case of Adam, we have his nature, and therefore his sin; so we have the nature of Christ, and therefore his righteousness. The nature we receive from Christ is a theanthropic nature. For as he is one person, his life is one. His divine nature is at the same time *human*, in the fullest sense. All that is included in him as a person—divinity, soul, and body—is embraced in his life. It is not the life of the logos, separately taken, but the life of the word made flesh, the divinity joined in personal union with our humanity, which is thus exalted to an imperishable divine life. It is a divine human life.

IV. *Concerning the church.* This being so, “the divine human nature as it exists in the person of Christ passes over to his people, thus constituting the church which is his body, the fullness of him that filleth all in all. The process is not mechanical, but organic. It takes place in the way of history, growth, regular living development.” The supernatural becomes natural, and as thus made permanent and historical in the church, must, in the nature of the case, correspond with the form of the supernatural as it appeared in Christ himself. The church must have a true theanthropic character throughout. The union of the divine and human in her constitution must be inward and real, a continuous revelation of God in the flesh, exalting this last continuously into the sphere of the Spirit. The incarnation being thus progressive in the way of actual human development in the church, the church is, in very deed, the depository and continuation of the Savior’s theanthropic life itself, in which powers and resources are continually at hand involving a real intercommunion and interpenetration of the human and divine.

V. *Concerning the sacraments.* A part, at least, of these powers and resources is lodged in the sacraments of the church, which have a real objective force contained in themselves. Our faith is needed only to make room for that force in our souls. The things signified are bound to the signs by the force of a divine appointment; so that the grace goes inseparably along with the signs, and is truly present for all who are prepared to make it their own. And while union with Christ is by regeneration, regeneration is by the church. It is by the ministrations of this living church, in which the incarnation

of Christ is progressive, and by her grace-bearing sacraments that the theanthropic life of Christ is continually carried over to new individuals. The sacraments, therefore, convey and sustain the life of Christ—his divine human life. We partake not of his divinity only, but also of his true and proper humanity; not of his humanity in a separate form, nor of his flesh and blood alone, but of his whole life, as an undivided form of existence. Consequently in the Lord's supper he is present in a peculiar way, as to his entire theanthropic life; the sign and the thing signified, the visible and invisible, form one invisible presence. Unbelievers receive only the outward sign, because they have not the organ of reception for the inward grace. Yet the inward grace is there, and believers receive both—the outward sign and the one undivided theanthropic life of Christ. This gives the eucharist a peculiar and altogether extraordinary power, as providing a mode of receiving Christ to be had nowhere else. Where the way is open for it to take effect, the sacrament serves in itself to convey the life of Christ into the person of a believer.

MERCHANT COMMISSION. See **COMMISSION MERCHANT**; **FACTOR**, *ante*.

MERCURY, planet. See **SOLAR SYSTEM**, *ante*.

MERCY, SISTERS OF, OR ORDER OF OUR LADY OF MERCY, an order of the Roman Catholic church founded in Dublin in 1827. They are of two classes, choir sisters and lay sisters; the choir sisters being occupied with the visitation of the sick and prisoners, the care of poor and virtuous girls, and other charities; the lay sisters being employed in the domestic occupations of the convent, etc. Each community is independent of the rest of the order, being subject only to the bishops. The origin of the order was due to Miss Catharine McAuley of Dublin, who, born of Roman Catholic parents and left an orphan, having been educated as a Protestant, joined the Roman Catholic church, and devoted her life and ample fortune to the service of the poor. The order has been introduced into many parts of Ireland, England, Scotland, and America. After a preliminary preparation of six months, candidates assume the white veil and become novices. The novitiate lasts two years. Their vows bind them to poverty, chastity, obedience, and the care of the sick and poor.

MEREDITH, OWEN (*pseud.*). See **BULWER-LYTTON**, **EDWARD ROBERT**, Earl.

MEREDITH, WILLIAM MORRIS, LL.D., 1799–1873; b. Penn.; a graduate of the university of Pennsylvania at Philadelphia, class of 1812; commenced the practice of law about 1820, and became a distinguished member of the profession. He held many positions in the gift of his native state, representing his district in the legislature from 1824 to 1828, and was president of the city council of Philadelphia from 1834 to 1849. He was attorney general of Pennsylvania from 1861 to 1867, was elected president of the Pennsylvania constitutional convention in 1857, and was U. S. secretary of the treasury under president Taylor from Mar. 7, 1849, to July 20, 1850. At the time of the Geneva conference on the Alabama question in 1871, he was offered the position of counsel for the United States, but declined.

MERES, FRANCIS, b. England, 1570; distinguished chiefly as being the author of *Wit's Academy, a Treasure of Goulden Sentences, Similies, and Examples*, 1634. *Palladis Tamia: Wit's Treasure, being the Second Part of Wit's Commonwealth, a Comparative Discourse of our English Poets with the Greek, Latin, and Italian Poets*, appeared in 1597. His references to Shakespeare are considered of value as showing the number of works by that author produced up to that time; in his review of the literature of the day, his criticisms are considered for the most part just. He published *God's Arithmetique*, 1597—a sermon on Eccles. v. 9. He was author of a translation of the *Sinner's Guide* by Fray Luis de Granada.

MERGER, in law, is the absorption of one right, estate, interest, or offense in another of a higher degree vesting in or committed by the same person. The doctrine of merger is most commonly brought to bear in the case of real estate. Thus, where there is no intervening estate between a greater and a less limited to the same person, the less estate is absorbed or merged in the greater. If an assignment of the mortgage is made to the mortgager, the whole estate vests in him. Or if the reversion in fee simple come to the tenant for years, either by descent or purchase, his term for years is merged in the fee. But both estates, to produce a merger, must be held by the same person, by one right, and at one time. Merger occurs either upon the meeting, in the same person, of an estate of higher and an estate of less degree, or by the meeting in the same person of the reversion and the particular estate. The inferior estate is extinguished by the merger, but the greater estate remains the same as before the merger. As a rule, whenever the legal and the equitable estates meet in one and the same person, the former absorbs the latter. But a court of equity will not allow the two interests to be merged, if such merger would be contrary to the intentions of the parties, or if, without prejudice to other parties, the legal and equitable estates can be kept apart, to the profit of the party in whom they would otherwise merge. Instances of a partial merger may occur, where an estate is merged in part, and exists in part. Thus, if a tenant for years acquire the reversion of part of the leased property, he owns part of the property leased in fee-simple, and is a tenant as to another part. Where two estates meet in the same person but by different rights, merger will not take place.—In criminal law a less offense is merged in a greater

which includes it. Thus, every assault includes a battery. But where the offenses are of an equal degree, merger will not take place. In torts, when a felony is also a tort, for which a private person may institute a civil action, the private wrong merges in the public wrong. But the merger in such cases is not complete, and, upon the conviction of the criminal, the civil remedy is revived. This rule of merger in the criminal law obtains in England, where criminal prosecutions are usually conducted by private persons, and the justification of it is to be found in the fear that criminals would not be prosecuted, if the injured person could first obtain civil satisfaction. In this country, criminal proceedings are generally conducted by public prosecutors, and the English doctrine of criminal merger does not obtain. In England itself, it applies only to actions of tort and trespass. Merger is also extended to contracts. Thus, against a debtor by specialty, the remedy for breach of an ordinary simple contract is merged in the higher remedy upon the specialty, and the creditor can resort to the latter only. So where a creditor has obtained a judgment against his debtor by contract, he can only bring suit upon the judgment, if it be unsatisfied.

MERIAN, MARIA SIBYLLA, 1647-1717; b. Germany; daughter of Matthäus Merian, a Swiss engraver, and sister of the historical painter Matthäus Merian; had a natural talent for drawing and painting, which developed in the direction of flowers and insects. She was the pupil of Abraham Mignon, celebrated for his exquisite representations of flowers, fruit, and insects. In 1665 she married Johann Andreas Graff, a painter, and removed to Nuremberg. She was never called by her married name, more fame attaching to her own, and published, 1679-83, an illustrated work in the Dutch language, 2 vols., *Origin of Caterpillars; their Nourishment and Changes*. It was translated into Latin in 1717, published in Amsterdam with a portrait of herself engraved by Houbraken; and in 1730, a French edition appeared, entitled *Histoire Générale des Insectes de l'Europe*. In 1698 she went to Surinam, and pursued her studies in South America, remaining there until 1701, publishing the result of her labor under the title of *Generation and Transformation of Insects*, 2 vols., with colored plates, and an additional volume by one of her daughters. She had 2 daughters, Jane Helen and Dorothea Maria Henrietta, who after their mother's death gave a new edition of her work to the public. The original was published in Amsterdam in 1705. In 1768-71 all her works were published, in Paris, under the title of *Histoire des Insectes de l'Europe et de l'Amerique*. A number of her original drawings, upon vellum bound in 2 vols., noted for their skill and accuracy, are in the British museum collection among the prints, and, with a portrait of herself, were the property of sir Hans Sloane. They were purchased at a great price, and the European specimens are said to be entirely original delineations, celebrated for scrupulous exactness. There are collections of her drawings in St. Petersburg, Holland, and Frankfort. She excelled as a writer no less than in the more conspicuous professions of painter and naturalist.

MERIAN, MATTHÆUS, the elder, 1593-1653; b. at Bâle; lived in Paris and Frankfort. He began in 1640 a work presenting perspective views of some European cities, which were drawn, engraved, and described by himself; the work is regarded as very valuable. It was continued after his death.

MERIDA, a state in n.w. Venezuela, bounded on the n. by Maracaybo; on the e. by Truxillo and Barinas; on the s. by Barinas and the United States of Colombia; and on the w. by Pampnora. The surface consists of elevated table-lands and valleys, between the numerous mountains, off-shoots of the Andes chain, which extend through the country in all directions. The Sierra Nevada, the highest of these mountains, rises to a height of 15,066 feet. There are many rivers and extensive lakes, among which may be mentioned the Lagunilla, 3,000 ft. above sea-level. The ordinary productions of the temperate and torrid zone are grown. Area, 10,000 sq.m.; pop. 70,000, largely Indians and Mestizos. Capital, Merida.

MERIDEN (*ante*), incorporated as a town in Conn. in 1806, as a city in 1867; pleasantly situated on elevated land, 94 m. n.e. of New York, and 18 m. s.w. of Hartford; pop. '80, 18,340. It has 3 post-offices, each the center of a considerable trade, called respectively Meriden, West Meriden, and South Meriden. The New York, New Haven and Hartford railroad passes through it. Meriden contains the city hall and 2 national banks. In West Meriden, the principal place, several daily and weekly newspapers are published, and it has 1 national bank. The aggregate capital of the banks in both villages is \$1,000,000. They have manufactories of electro-plated silver-ware, tin-ware, cutlery, steel, cement pipe, bronzes, gas-fixtures, machinery, malleable iron, brass castings, fire-arms, and woolen goods, employing a capital of \$5,000,000, with an annual product of about \$15,000,000. The annual product of the britannia works, an extensive establishment, is estimated at \$2,500,000, occupying several factories, and employing nearly 1090 men. The township contains 12 churches, 1 fire insurance company, 1 savings bank, a well-organized fire department, water-works, and is lighted with gas. It is one of the most enterprising and prosperous manufacturing centers in New England.

MERIDIAN, a village in e. Mississippi, at the junction, in Lauderdale co., of the Vicksburg and Meridian, and the Alabama Great Southern, on the Mobile and Ohio railroad; pop. about 4,500. It is 135 m. n.w. of Mobile, and 96 m. e. of Jackson. It contains a court-house, 5 schools, 8 churches, 5 newspapers, and 2 female colleges. Its

leading industries are represented by the manufacture of cotton goods and yarn, furniture, sashes, doors, and blinds, and plows; other manufactories are foundries, machine shops, steam corn mills, and soda-water factories. It has an excellent trade, due chiefly to its central position in the midst of the lumber region, and is rapidly increasing in wealth and population. It was at this point that the troops of gen. Sherman, on Feb. 16, 1864, accomplished "the most complete destruction of railways ever beheld," according to his own official report.

MERIONES: *MERIONIDIDÆ*, a genus of rodents of the family *dipodidæ*, allied to the common jerboa (*dipus Aegypticus* of Africa and south-western Asia. The best-known species is the *meriones hudsonius*, or jumping mouse of North America (*jerboa Hudsonicus* of Baird, Labrador, southward and westward to the Pacific). It is about 3 in. long to the tail, which is from 5 to 6 inches. Its color above is light brown, lined with black; belly white, sides yellowish gray, contrasting finely with the back and belly. It takes very long and rapid leaps, moving probably with greater rapidity when pursued than any other mammal of its size. See **RODENTIA**.

MERTWETHER, a co. in w. central Georgia; bounded w. by the Flint river, and is drained by many tributary creeks; 550 sq. m.; pop. '80, 17,651—9,836 colored. The surface is hilly and varied. The staples are cotton, Indian corn, and grass; of cotton there are produced not far from 10,000 bales yearly. There are many mineral springs in the co., of which the largest is at Warm springs on Pine rock, 40 m. n.e. of Columbus; it discharges 1400 gallons a minute; the water has a temperature of 90° Fahr., and contains magnesia, carbonic acid, etc. Chief town, Greenville.

MERTWETHER, DAVID, 1755-1825; b. Va.; a soldier at the siege of Savannah 1778-79, in which he was taken prisoner by the British. In 1785 he removed to Georgia and filled several offices in the gift of the state, representing his district in the legislature, and was member of congress 1802-07 as representative from Georgia. He was an earnest supporter of president Jefferson, whose policy he cordially indorsed, and was appointed by him Indian commissioner to adjust the claims of the tribe of Creek Indians in Florida. In 1817 he was chosen presidential elector, and the same year was on the commission with gen. Andrew Jackson and gov. McMinn of Tennessee, to treat with the Cherokee Indians of Georgia, which was concluded July 8, 1817, by which an extensive tract of land, w. of the Appalachee river, was added to the territory of the United States, opening the cotton-growing region of Georgia, now thickly populated, intersected by railroads, and furnishing granite, iron ore, and gold to the mineral wealth of the country. In 1821 he was again chosen presidential elector.

MERLE. See **BLACKBIRD**, *ante*.

MERLU'CIUS, a genus of fishes belonging to the cod family. See **HAKE**, *ante*. The American hake (*M. albidus* of DeKay), called whiting in New England, and also silver hake, is from one to two feet long, the upper part of the body rusty brown, with golden hues, by reflection, while alive. It is silvery white on the belly, and the iris has a silvery appearance. Lower jaw longer than upper; teeth long and sharp. It is abundant in British America, and as far south as New Jersey. It is very voracious, and devours many of the smaller fishes. Another American hake belongs to the genus *phycis* (q.v.)

MER'ODACH, or **BEL MER'ODACH**, the name of a Babylonian god, as is evident from its occurring in Jer. i. 2 in connection with idols. It is supposed to be the name of a planet, either Mars or Jupiter. It is supposed to be derived from the Persian and the Indo-Germanic *mord* or *mort*, which means death, and the affix *och* found in many Assyrian names, as Nisroch, etc. Merodach was identical with the famous Babylonian Bel or Belus, the word being first probably a mere epithet of the god, and by degrees superseding the proper name. But the names were sometimes distinguished. The golden image in the temple of Babylon seems to have been worshiped as Bel rather than Merodach, while other idols may have represented him as Merodach. The temple described by Herodotus as the temple of Belus is, in the inscriptions, the temple of Merodach. But we do not know what the distinction was between the two names. It is not clear what the aspect of the god was when worshiped. Bel Merodach is represented as the "old man of the gods," "the judge," and Nebuchadnezzar calls him the great lord, "the most ancient," and Neriglissur the "first-born of the gods," "the layer up of treasures." He is regarded as the source of all power, and thus concentrates in his own person the greater part of that homage which had previously been divided among the various gods of the Pantheon. The Babylonian kings were often named after him, as Merodach Baladan, Evil Merodach, etc.

MÉRODE, FRANÇOIS XAVIER MARIE FRÉDÉRIC GHISLAIN DE, 1820-74; b. Brussels; a grand-nephew of Lafayette. His father, count Félix de Mérode, had been offered and refused the Roman Catholic candidature for the throne of Belgium. His son at first entered the army and took part in the Algerian campaign. In 1848 he began the study of theology at Rome, where he was ordained to the priesthood in 1850. Pius IX. at once made him his chamberlain, and canon of St. Peter's. In 1860 he was appointed temporary minister of arms, and recruited, chiefly from foreigners, a pontifical army. In 1865 he went out of office in consequence of a dispute with cardinal Antonelli. The next year he was made archbishop of Melitene, and papal almoner. In 1869, at the

instance as is supposed of his brother, count Montalembert, he resisted the declaration of the doctrine of papal infallibility; but he acquiesced in the final enunciation of it by the ecumenical council. He gave liberally for the foundation of charitable and educational institutions, and the improvement of public grounds and streets in Rome.

MEROM, or HÛLEH, LAKE, generally regarded as the waters of Merom, where the assembled forces of the confederate kings of Canaan were defeated by Joshua, is at the n. end of the Jordan valley, where it forms the central part of a low plain, 16 m. long and 7 wide, and surrounded with hills of various heights. The lake itself is triangular at the base, of which towards the north the upper Jordan enters and from its apex flows out again towards the s. on its steep descent to the sea of Galilee. The falling rains and melting snows periodically increase its size, but its average length is about $4\frac{1}{2}$ m. and its width $3\frac{1}{2}$. It is surrounded with marshy ground covered with a dense jungle of canes, the home of wild swine and ill-looking buffaloes that are often seen wallowing in the mud or standing almost immersed in the water. The lake is shallow and is covered for acres with yellow and white water lilies and with the true Egyptian papyrus. Hûleh is one of its ancient names, which Josephus employs for the region under the form *Ulatia*, while he calls the lake itself *Semechonitis*. The district as well as the lake is still called Hûleh, is very fertile, but inhabited only by a few Arabs who dwell in tents. There is not a village or a house in any part of it.

MEROPIS. See Cos, *ante*.

MEROSTOMATA (Gr. *meron*, thigh; *stoma*, mouth), an order of crustaceans comprising two sub-orders, eurypterida (Gr. *eurus*, broad; *pteron*, wing) and xiphosura (Gr. *xiphos*, sword; *oura*, tail), the latter including the only living representative, the king-crab, or horse-shoe crab. The first of these sub-orders is extinct, and their fossils are exclusively paleozoic, all the members being confined to the Silurian, Devonian, and carboniferous formations. The sub-order eurypterida is described by Henry Woodward as composed of "crustaceans with numerous free thoracico-abdominal segments, the first and second of which bear one or more broad lamellar appendages upon their ventral surface, the remaining segments being devoid of appendages; anterior rings united into a carapace bearing a pair of larval eyes near the center, and a pair of large, marginal, or sub-central eyes; the mouth furnished with a broad post-oral plate or *metastoma*, and five pairs of movable appendages, the posterior of which form great swimming-feet; the telson, or terminal segment, extremely variable in form; the integument characteristically sculptured." Some of the members of this sub-order were of gigantic dimensions, as *pterygotus anglicus*, measuring 6 ft. or more in length. The berry-like bodies found in the old red sandstone of Scotland, and described under the name of *parkia decipiens*, are regarded as the eggs of large crustaceans of the eurypterid group. The second sub-order, xiphosura, are characterized by Woodward as follows: "Crustacea having the anterior segments welded together to form a broad, convex buckler, upon the dorsal surface of which are placed the compound eyes and ocelli; the former sub-centrally, the latter in the center in front. The mouth is furnished with a small labrum, a rudimentary *metastoma*, and six pairs of appendages. Posterior segments of the body are more or less free, and bearing upon their ventral surfaces a series of broad lamellar appendages; the telson, or terminal segment, ensiform." The only living members of this sub-order are the *limuli*, commonly known as king-crabs, horse-shoe crabs. They inhabit the Indian and Japanese seas, the Antilles, and the coasts of North America. The xiphosura commenced their existence in the upper Silurian formation, where they are represented by the *neolimulus falcatus* of Henry Woodward. In this genus the head-shield has a resemblance to that of the king-crab, and there are traces of a divisional line crossing the head, and apparently corresponding with the facial suture of the trilobites (q.v.). Compound eyes and ocelli seem to be present, and there are six free thoracic, and probably three free abdominal segments, of which only two have been preserved. No members of the sub-order have been found in the Devonian formation, but several types occur in the carboniferous, the most important member being *pestrechia rotundifolia* of the coal measures of Europe, and the genus *euproops* of the North American coal measures, very similar to each other, the latter, however, having eyes situated on the anterior edge of the cephalic buckler. Limuloid crustaceans are also found in the permian and triassic formations, as well as in the upper Jurassic, the cretaceous, and tertiary. See INVERTEBRATA.

MERRICK, a co. in e. central Nebraska; drained by Prairie creek, Loup fork, and Platte river, the latter forming its s.e. boundary; 650 sq.m.; pop., '80, 5341, showing nearly a tenfold increase from that of '70, 557. The Union Pacific railroad traverses the s.e. part of the county. The surface is rolling prairie, well wooded, and very fertile. Wheat and the other cereals are raised in large quantities. Chief town, Central City.

MERRICK, JAMES LYMAN, 1813-66; b. Monson, Mass.; graduated at Amherst college in 1830, and at the theological seminary at Columbia, S. C., in 1833; ordained as a missionary to Persia in 1834; embarked for Constantinople in 1834, and arrived in 1835 at Tabriz, Persia. Having traveled and labored among the Mohammedans for two years, he joined the Nestorian mission at Oroomiah. Returning to America in 1845 he was installed pastor of the Congregational church at Amherst, where he remained until his

death. He was a faithful missionary and pastor. He had not only a thorough knowledge of Persian, but was well versed in Arabic, Hebrew, Turkish, Greek, Latin, and French. He was much interested in the Persian language and literature, and bequeathed his property for the forming of four Persian scholarships in Amherst college and Columbia seminary. He published the *Pilgrim's Harp*, a volume of poems; *The Life and Religion of Mohammed*, translated from the Persian; *Keith's Evidences of Prophecy*, translated into Persian; *A Full Work on Astronomy*, left in MS. and translated into Persian; *A Friendly Treatise on the Christian Religion*; *A Treatise on the Orthography and Grammar of the English Language*.

MERRILL, STEPHEN M., D.D., b. Ohio, 1825; became a traveling preacher in the Ohio conference, 1846; was chosen editor of the *Western Christian Advocate*, 1868; and elected one of the bishops of the Methodist Episcopal church, 1872. His residence is at Chicago.

MERRILL, WILLIAM E., b. Wis., 1837; appointed brevet 2d lieut. of engineers in 1859, having graduated first in his class at the West Point military academy; promoted to 1st lieut. in 1861, capt. in 1863, and maj. in 1867. His father, capt. M. E. Merrill, was killed in the Mexican war, where he served in the 5th U.S. infantry, under gen. Winfield Scott, falling at the head of his command in the attack on the fortress of Molino del Rey, which guarded the field of Chapultepec, Sept. 8, 1847. During the war of the rebellion William E. was appointed assistant engineer in the armies of Virginia and Ohio, and afterward chief engineer of the army of the Cumberland under gen. Rosecrans. He was present at the battles of Chickamauga, Sept. 19, 20, 1863, when the union forces under gen. Rosecrans suffered defeat by gen. Bragg, and at Missionary Ridge on Nov. 24, 1863, when the same army under gen. Grant defeated gen. Bragg. Subsequently, he went with the federal force under gen. Sherman to reinforce gen. Burnside, intrenched at Knoxville; the movement resulting in the raising of the siege and the defeat of Longstreet. In 1864 he raised a regiment of volunteer veteran engineers, and being commissioned col., he served with them in the departments of Tennessee, Alabama, and Georgia, in raising fortifications at unprotected points. At the close of the war he was given a commission on the staff of the lieut. gen. of the army, and engaged in improving the communications of the west, river navigation, surveys, and building roads and bridges. In 1870 he published *Iron Truss Bridges for Railroads*.

MERRIMACK, a co. in s. New Hampshire, drained by the Merrimac river intersecting it centrally, and furnishing extensive water power; 960 sq.m.; pop., '80, 46,211. It is also drained by the Contoocook, Warner, and Black rivers in the w., and Suncook river, with other branches of the Merrimac, and has numerous lakes on the east. Its surface is rough and hilly. It is well timbered, many forests of maple, pine, and oak growing along the rivers, and on the hill tops. The Winnepesaukee river forms part of its n. boundary, flowing s.w. from Great bay. It contains Kearsage mountain, 2,943 ft. above the level of the sea, 10 m. w. of lake Sunapee, which for 9 m. forms part of its n.w. boundary, the Little Sunapee lake lying a little to the north. It is traversed by the Concord railroad in the e., the Concord and Claremont railroad, and Contoocook branch, the Northern (N.H.), and the Suncook Valley railroad. Its soil is fertile, producing large quantities of fruit, all kinds of grain, wool, Irish potatoes, and dairy products. Much live stock is raised. It has quarries of the finest granite which is extensively exported. Among its manufactures are cotton goods, woolen goods, silver ware, wooden ware, iron castings, leather, carriages, lumber, and paper, machinery, bricks, furniture, leather belting, organs, etc. In the n.e. section is Shaker village, containing a Shaker church, the inhabitants being engaged in the manufacture of hosiery, corn brooms, and washing machines. Seat of justice, Concord.

MERRITT, TIMOTHY, 1775-1845; b. Conn.; entered the ministry of the Methodist Episcopal church in 1796, and for 34 years was pastor successively in Boston, Lynn, Providence, Springfield, New Bedford, etc. While preaching at Malden he edited *Zion's Herald* in Boston, and in 1832-36 was assistant editor of the *Christian Advocate and Journal* in New York. He was a thorough scholar, an able writer, an eloquent preacher, an accomplished debater. He published *The Christian's Manual*; *The Convert's Guide and Preacher's Assistant*; *Validity and Sufficiency of Infant Baptism*, and in connection with the Rev. Wilbur Fisk, *Lectures and Discourses on Universal Salvation*; also many controversial pamphlets and sermons.

MERRITT, WESLEY, b. New York, 1836; after graduating from the U. S. military academy at West Point, class of 1860, was commissioned brevet 2d lieut. of dragoons and in 1862 capt. 2d U. S. cavalry. He was on the staff of the cavalry gen. Stoneman when he made the raid on Richmond in April, 1863, and 2 months after was promoted to volunteer brig. gen. For bravery at Gettysburg, where he commanded the reserve cavalry brigade, he was brevetted maj. July, 1863. From 1863 to 1864 he commanded a cavalry division in central Virginia. He commanded a cavalry brigade under gen. Sheridan in the Richmond campaign of 1864 and did good work at the battle of Yellow Tavern, for which he was brevetted lieut. col. May 11, 1864, and col. for the battle of Hawes's Shop, May 28, 1864. He was present at the battles of Opequan, Cedar Creek, and Fisher's Hill; and commanded a division under gen. Sheridan through the Shenandoah campaign,

for which service he was brevetted maj.gen. of volunteers. He distinguished himself at Five Forks, Sailor's Creek, and at the final surrender, and was promoted to maj.gen., his commission dating from Five Forks. On July 28, 1866, he was commissioned lieut.col. of the 9th U. S. cavalry, having some months previous been mustered out of the volunteer service.

MERRY, ROBERT, 1755-98; b. in London; took a degree at Christ's college, Cambridge, and began the study of law, but was never called to the bar. Having purchased a commission in the army he was for some years a lieut. in the horse-guards. After leaving the service, Merry traveled extensively throughout Europe; and in Florence was admitted a member of the noted Della Cruscan academy. After his return to England he published many poems under the signature of Della Crusca. His ambition was to form a new school and his style is similar to that of Mrs. Piozzi and Bertie Greathead. His audacity was much greater than his genius; and the whole school of his imitators was satirized by sir Wm. Gifford of the *Quarterly Review* in his *Mæviad* and *Baviad*. In 1791 Merry married an actress, Miss Brunton, and 5 years later emigrated to the United States, and died very suddenly in Baltimore. His principal writings were: *Lorenzo*; *Fenelon*; and *Ambitious Vengeance*,—all dramas; and he left many fugitive poems.

MERTON, WALTER DE, d. 1277; b. England; educated in the convent at Merton, in Surrey, and ordained to the priesthood. Henry III. raised him to the lord chancellorship in 1258, from which office he was deposed by the barons under Simon de Montfort in 1259. He returned to that office in 1261, was removed in 1263, and reappointed in 1272. He resigned two years later, when he was appointed to the see of Rochester. He founded at Basingstoke a hospital for superannuated clergymen and travelers in distress; but he is best known by his foundation of Merton college, Oxford, which was completed in 1274. This was a purely secular and literary institution, and became the model of the subsequent Oxford foundations.

MÉRY, JOSEPH, 1798-1866; b. France, educated at a seminary and subsequently studied law, but early developed a passion for atheistical lore, and was expelled from the seminary on that account. While reading law he had an unfortunate affair, ending in a duel, which resulted in his dismissal from the school, but not in dulling his keen sense of honor, for he was soon after one of the principals in a duel in Paris in which he was severely wounded. Subsequently he lived a dissipated life in Italy, and was ultimately obliged to leave the country. In 1821 he attacked the abbé Elicagaray in a pamphlet, and was placed under arrest, but not profiting by this seclusion he soon found himself again in durance for transgressing the laws regulating the press. The following year he went to Constantinople and returned after a short sojourn (not being on good terms with the French ambassador at that port), to edit a newspaper at Marseilles, and in 1824, found himself once more in Paris, associated with Auguste Marseille Barthélemy the satirist, and together they published *La Villéiade*, an attack on the ministry of Villèle. With him he was associated in writing verses dedicated to the Bonaparte family, and satirical verses on other administrations, and published poems, romances, and dramas in rapid succession. In 1838, they published *Napoleon en Égypte*, a lyrical poem, sending presentation copies to each member of the Bonaparte family. Among his most attractive works, some of which have been translated into English, are *Nuits anglaises*, first issued as *Nuits de Londres*; *Héva*; *La guerre du Nizam*; *Les confessions de Marion Delorme*; *Nuits d'Orient*; *Un carnaval de Paris*; and *Poésies intimes*, late edition 1864. He published, 1861, *Théâtre de salon*, and wrote the libretto for *Sémiramis* and other operas.

MESCALA, a river of Mexico, which takes its rise in the s.e. part of the country, not far from Puebla. Its general course is westerly and southerly; and it is about 400 m. in length, emptying into the Pacific at the port of Zacatula. It is known in the first part of its course as the Atoyac, then as the Rio Pablano, and, where it serves as the boundary line between Guerrero and Michoacan, as the Rio de las Balsas; and near the city Zacatula is known by that name. The current of the stream is exceedingly swift and the river consequently not navigable. It has been thought by the natives that the water contains poisonous mineral ingredients, and to this is ascribed the prevalence of a loathsome skin disease among the Indians living on its banks. Gold is found on its banks and especially near the mouth.

ME'SHA, king of Moab in the reigns of Ahab and his sons Ahaziah and Jehoram, kings of Israel, and tributary to the first. He seized the opportunity afforded by the confusion which followed Ahab's death, and the feeble reign of Ahaziah, to shake off the yoke of Israel, and free himself from the heavy tribute imposed upon him. Jehoram, on succeeding to the throne of Israel, secured the aid of Jehoshaphat, king of Judah, his father's ally, to reduce the Moabites to their former condition of tributaries. The united armies of the two kings were joined by the forces of the king of Edom. The Moabites were defeated. The king took refuge in his last stronghold, and having in vain attempted to force his way through the besieging army, he, in the madness of despair, withdrew to the wall of the city, and in the sight of the allied host offered up his first-born son and successor as a propitiatory sacrifice to Chemosh, the cruel fire-god of the Moabites. The bloody deed had the desired effect of causing the besiegers to retire to

their own land. On withdrawing, however, they ravaged the country, and carried off much spoil. The Moabite stone (q.v.) is a memorial of this king.

MESMERISM (*ante*). The following is the account given by Mesmer of the agent by which he claimed to produce the phenomena which distinguished his experience and practice: "Animal magnetism is a fluid universally diffused; it is the medium of a mutual influence between the heavenly bodies, the earth, and animated bodies; it is continuous so as to leave no void; its subtilty admits of no comparison; it is capable of receiving, propagating, and communicating all the impressions of motion; it is susceptible of flux and reflux. The animal body experiences the effects of this agent; by insinuating itself into the substance of the nerves it affects them immediately. There are observed, particularly in the human body, properties analogous to those of the magnet; and in it are discerned poles equally different and opposite. The action and the virtues of animal magnetism may be communicated from one body to other bodies, animate and inanimate. This action takes place at a remote distance without the aid of any intermediate body; it is increased reflected by mirrors; communicated, propagated, augmented by sound; its virtues may be accumulated, concentrated, transported. Although this fluid is universal, all animal bodies are not equally susceptible of it; there are even some, though a very small number, which have properties so opposite that their very presence destroys all the effects of this fluid on other bodies. Animal magnetism is capable of healing diseases of the nerves immediately, and others mediately. It perfects the action of medicines; it excites and directs salutary crises in such a manner that the physician may render himself master of them; by its means he knows the state of health of each individual, and judges with certainty of the origin, the nature, and the progress of the most complicated diseases; he prevents their increase, and succeeds in healing them, without at any time exposing his patient to dangerous effects or troublesome consequences, whatever be the age, the temperament, and the sex. In animal magnetism nature presents a universal method of healing and preserving mankind." (*Mémoire sur la Découverte du Magnétisme Animal*, par M. Mesmer, Paris, 1779, p. 74 et seq.)

In presenting any question for consideration and discussion it is simple fairness to permit each side to exhibit its position after its own manner. It is matter for reflection that this statement by Mr. Mesmer has never been authoritatively controverted by any of the numerous opponents whom it has met in the century which has elapsed since it was first promulgated. It should first be remembered as to Mesmer that he was undoubtedly very much of a charlatan; and that partly from the character of his temperament, and partly from the nature of his surroundings, he accompanied his practice by methods which were designed to be striking and dramatic, rather than scientific; and to cloud with an appearance of mystery, and even supernaturalism, processes which were in themselves of the simplest character. The shrewdness of this operator is seen in his careful provision for accidents, and for the unsuccessful termination of any of his experiments or treatment by the explanation that although the fluid is universal in its scope, there are persons obnoxious to its exercise, who can prevent its influence. It should further be noted that the sweeping conclusions of the commissioners appointed by the French government to investigate the validity of Mesmer's pretensions—among which commissioners was Benjamin Franklin—were afterwards qualified materially by the decision of a second commission of no less importance as to the ability of its membership. And it remains to be said that the distinct assertions of Mesmer as to the power of some occult force which he terms animal magnetism have been sustained over and over again by actual experiment and practice; while new features and new developments of the nature of this force have been made known to us within the present generation. The theory that the cause of the phenomena produced lies in the principle of *suggestion* is set at rest positively by the fact that subjects have been influenced without the proximity of the operator, and even when the latter was miles distant from them. The point as to its efficacy in disease has been tested numbers of times with success. So far has this been the case that in India amputations have been conducted while the patient was under this influence, and this in the presence of valid witnesses, and successfully. The idea of any other than a psychological control being exercised is disposed of by the remarkable phenomena of phreno-mesmerism, by which certain faculties and propensities have been made to display themselves, by irritation of the corresponding organs of the head, and in cases where the subject was utterly ignorant of the nature and details of phrenology as enunciated by Gall and Spurzheim. The fact that such eminent scientists as Elliotson, Braid, Reichenbach, and Carpenter have added their testimony as to the existence of a certain subtle fluid, such as is described by Mesmer, is not without its bearing on this question. Baron Reichenbach, an eminent German chemist, experimented in great detail with magnets and crystals, and claimed to have demonstrated the fact of the existence of such a fluid, which he termed *od* or the *odic* force, and which he alleged could be brought into exercise in the case of a certain class of subjects termed *sensitives*, by employing these objects. His plan was the use of passes, making these, however, by means of the magnet or the crystal instead of the hand; the result being to throw the subject into a cataleptic condition, accompanied by the occurrence of phenomena similar to those otherwise attributed to animal magnetism. Braid, by the use of a brilliant object fixed to the forehead, in such a position as to distort the vision when

the eyes were directed towards it, produced an identical condition (see HYPNOTISM). It will be remembered in this connection that the Hindu devotee, desirous of achieving the condition *Nirvana*, abstracts his attention from surrounding things, and fixes it upon the pit of his stomach. It has been a common method in the practice of mesmerism, instead of employing passes, to direct the subject to fix his attention and his gaze on a bright object—a ring, for instance—held in his hand, the hand resting on his knee as he sits in a comfortable position. In the use of this plan the result has been found to be precisely the same as that gained by the employment of passes.

A German writer, Kluge, has given the following classification of the effects observed in mesmerized subjects: 1. Called *waking*. Presents no very remarkable phenomena. The intellect and the senses still retain their usual powers and susceptibility. 2. Half-sleep, or imperfect crisis. Most of the senses still remain in a state of activity, that of vision only being impaired, the eye withdrawing itself from the power of the will. 3. The magnetic or mesmeric sleep. The organs of the senses refuse to perform their respective functions, and the patient is in an unconscious state. 4. The perfect crisis, or simple somnambulism. In this stage the patient is said to “wake within himself,” and his consciousness returns. He is in a state which can be called neither sleeping nor waking, but which appears to be something between the two. 5. Lucidity, or lucid vision. This is called, in France, *clairvoyance*; in Germany, *Hellschen*. In this state the patient is said to obtain a clear knowledge of his own internal mental and bodily state, is enabled to calculate with accuracy the phenomena of disease which will naturally and inevitably occur, and to determine what are their most appropriate and effectual remedies. He is also said to possess the same faculty of internal inspection with regard to other persons who have been placed in mesmeric connection (*en rapport*) with him. 6. Universal lucidity; German, *allgemeine Klarheit*. In this state the lucid vision becomes greatly increased, and extends to objects whether near or at a distance. To this very accurate catalogue we should add a condition—7. Coma. Into this state the patient falls who has been permitted to escape from the influence of the will of the operator. He no longer responds to command, he is apparently unconscious, his pulse recedes to the vanishing-point, and his heart-beats cease to be noticeable. This state closely simulates death, and is believed to be actually premonitory of dissolution. Cases have occurred in which it has required the utmost exertion of all the methods known to those who practice mesmerism to restore to consciousness patients who had reached this condition.

The mesmeric state has been applied mostly to the cure of disease, for which purpose it was used by Mesmer when it first attracted public attention. It has also been used for the purpose of producing sleep during surgical operations; and Miss Martineau relates a case of one of her servants, who when in the mesmeric condition was said to be able to predict future events. The class of diseases which have been cured by its means are those which are known to medical men as functional nervous diseases. Various nervous diseases, such as paralysis, epilepsy, etc., occurring from changes in the structure of various organs, are not susceptible of benefit from the mesmeric state. It is in those cases where no structural lesion can be supposed to exist, and which often yield to sudden changes of the mind from various causes of excitement, and which frequently cease without obvious cause, that the disease has yielded to this remedy.

In 1836 Mr. Colquhoun published in London a work on animal magnetism, entitled *Isis Revelata*, which attracted considerable attention to the subject, and which contained as an appendix a translation of the report of the second French commission appointed to investigate this subject in 1831, and to which we have already referred. This was followed by the arrival in London of baron Dupotet, who performed many experiments, some of which were witnessed by Dr. Elliotson, who immediately undertook the further investigation of the subject. The results of the experiments of Dr. Elliotson, which were published in the *Lancet*, produced a great sensation, and phenomena which had hitherto been regarded as impossible were constantly produced. In 1841 M. La Fontaine, a Frenchman, visited London, and gave public lectures on mesmerism and examples of its phenomena. A number of persons claiming to be “professors” of animal-magnetism, or electro-biology, have from time to time given public exhibitions in the cities and towns of the United States and the British provinces in America. In these exhibitions the object has been to exhibit voluntary patients placed under the control of the operator, and to display the various phenomena which could then be produced. These have been always simple in their nature, and of a character to amuse more than to instruct. No scientific man had given himself to the investigation of this subject to any important extent in America until, during the winter of 1880–81, Dr. George M. Beard, of New York, a member of the Neurological society, and a man qualified by the nature of his studies and experience, and his avowed skepticism on this subject, to undertake its investigation with a mind at least free from bias in its favor, commenced a series of experiments, and eventually conducted certain of these in public. These experiments were none of them novel in character, except possibly that of showing the insensibility to the most powerful light of the eye of a patient in a mesmeric condition. The experiments were all conclusive as to the nature of the phenomena produced, but the inferences reached by the experimenter and those who witnessed them as to their occasion and origin have not been made public at the time of this writing. But the bald facts of the phenomena have never been disputed by intelligent investigators. Only those unaccus-

tomed to profound investigation have set these down as the result of self-deception or of collusion. It still remains to be discovered what influence produces the conceded result, and to what extent, if at all, the human will is engaged in the matter. Something suggestive as to these points might be stated in this wise: that a subtle force pervades creation and envelops the earth, with the other planets; that this force performs specific duties in connection with vitality, and in the form of a positive ether becomes visible under certain conditions, and in the case of animals, including human beings, more readily so to those possessing certain natures and temperaments (sensitives); that this force may be and is exerted without sensible regard to time or distance; that it is subject to evolution and direction by the human will; that it is concentrated in certain material forms, as in the magnet and the crystal, and in certain atmospheric and meteorological conditions, as in snow-storms; that it is correlated with the other forces and, like these, is one of the modes of motion; that it is more elevated in its character than any of the simply material forces; because it responds to mental impressions and psychological influences; that it includes all the forms and modes of expression of all the subordinate, or strictly material, forces; that thus it is enabled to act upon things animate or inanimate, material as well as immaterial, thus accounting for the phenomena of table-tipping, so-called "spiritual" rapping, etc.; that it may even exhibit or manifest conditions simulating intelligence, wherein would appear one explanation of these phenomena in the practice of spiritualism; finally, that it is superior to material laws, whence the phenomenon of levitation, that of untying impossible knots, etc. As suggestions, merely, these may awaken interest in the general subject.

Oersted says (*Soul in Nature*), "Everything in science prevailing throughout a certain period contains actual scientific truth, though frequently much obscured." The fact that mesmerism, or animal-magnetism as it may more properly be termed, has continued to affect mankind as a possible scientific fact during more than a century of pronounced opposition, would seem to bring it within the category signified by Oersted. And in these days of investigation into the nature of things, and when such extraordinary discoveries are constantly being made as to the limitless nature and scope of the natural forces, it would appear proper to devote a certain fair degree of scientific skill and patience in the direction of elucidating the nature and origin of such remarkable phenomena. See ANIMAL MAGNETISM, *ante*.

MESQUITE GRASS, a procumbent pasture-grass, abundant in the s.w. part of the U.S., and belonging to the genus *aristida*.

MESQUITE TREE. See MEZQUITE TREE, *ante*.

MESSA'NA. See MESSINA, *ante*.

MESSAPIA, the name given by the Greeks to the peninsula in the s.e. part of Italy, and called by the Romans Calabria. It was known to the Greeks also by the name of Iapygia. There were two tribes, the Salentini on the s.e. coast near Tarentum, and the Calabri in the n.e. These last the Greeks called Messapians. They were the most powerful, and from them the whole district was called Calabria and Messapia. It was very fertile and celebrated for its wine, olives, and other fruits. The Calabrian horses and the Tarentine cavalry were famous. The inhabitants occupied the cities of Hyria and Brundisium in the 8th c. B.C., when the Greek colony was founded. They fought against the Tarentine colonists and defeated them in a great battle about 473, but gradually yielded to the Greeks. In union with other tribes under the command of Pyrrhus they opposed the Romans, but after his fall were subdued in a single campaign. In the second Punic war they revolted to Hannibal, but were soon conquered.

MESSE'NE, capital of Messenia, in the Peloponnesus, founded by Epaminondas, 371 B.C. It was situated at the foot of Mount Ithome, on both sides of the Black springs. So great were the zeal and activity of the Thebans and their allies that it was completed and fortified in 85 days. The walls of the city were of stone, exceedingly strong, and well supplied towers and buttresses. The citadel was on Mount Ithome, famous in history for the protracted defense which the Messenians made in their last revolt. It was with the Acropolis the strongest city, next to Corinth, of the Peloponnesus. It was supplied with water from a fountain called Clepsydra. The city was named from the wife of Polyraon, one of the earliest rulers of the country. The ruins of it are visible at the modern village of Mavromati.

MESSER, ASA, D.D., LL.D., 1769-1836; b. Mass.; graduated in 1790 at Brown university, in which he was tutor in 1791, professor of languages in 1796, of mathematics and natural philosophy in 1799, and president 1802-27. He was licensed to preach by the First Baptist church in Providence; ordained in 1801, and preached occasionally, while professor and president, for churches of different denominations. After retiring from the presidency he was elected to several city offices by the people of Providence. He published several discourses and orations.

MESSERVE, NATHANIEL, d. 1758; b. N. H.; a ship-builder; one of the 304 New Hampshire men who went, in 1745, with the British forces to besiege the fortress of Louisburg, Nova Scotia, at the sight of whom the detachment of the royal battery on the shore spiked their guns and fled. He was lieutenant-col. of col. Moore's regiment, and rendered important service. He was present at the attack on fort Edward, in com-

mand of the New Hampshire regiment, and bravely defended the position. In 1756 he commanded the New Hampshire troops on the expedition to the French post of Crown Point, on lake Champlain. In 1758 he set out with the second expedition, under gen. Amherst, to Louisburg, then defended by the chevalier de Drucourt, but died of small-pox before reaching his destination. His son George held offices under government in New Hampshire and Massachusetts, having been appointed stamp agent in the former state and collector in Portsmouth and Boston. During the revolution George espoused the tory cause, and went to England in 1777.

MESSINA, a province in n.e. Sicily separated from the province of Calabria, in Italy, by the straits of Messina, and supposed to have been cut off from the main-land by an earthquake before the historic period; 1768 sq.m.; pop. 420,649. It includes the Lipari islands, lying n.w. of it, in the Tyrrhene sea; its coast is washed by the Ionian sea, and its s.w. boundary is the base of Mt. Etna. It contains the Neptunian range of mountains, part of the Peloric chain, which traverses the n. of Sicily. Its surface is diversified by fertile valleys, which are irrigated by heavy torrents that descend on either side of the mountains in the rainy season, but are dried by the heat of summer. Its productions are wheat, flax, argol, corn, fruits, hemp, nuts, oil and the red Faro wine; among the exports is the cordial called *vino-colto* from Milazzo. Sulphur is found in large quantities; also granite, quartz, and mica. Its coast presents a varied outline, the town of Messina on the right of cape Faro, or Pelorus, at its extreme n.e. point, occupies the section of the coast line called from its form the "sickle," having a convenient harbor with spacious wharves defended by a fort. The whole country has been racked by wars and shaken by earthquakes, and the cities have a modern appearance, having been, in most cases, rebuilt. It is drained by the Monforte, San Antonio, and other small streams. It is divided into 4 distrelli and 116 communes. On a projection called cape Milazzo in the n. portion the sea-port town of Milazzo is built, whose inhabitants are sailors and fishermen, and the vine and olive are cultivated. Taormina, built on a steep towering cliff, overlooks the sea on the e., and contains many interesting ruins. On the n. coast are profitable manufactures of earthenware, and a Norman castle; and so substantially have the military works been laid on the natural defenses that it has been considered the Gibraltar of Sicily, and has been the scene of many ancient and modern wars. The province contains many churches and convents, and relics of antiquity of great interest, cenotaphs, tessellated pavements, etc. Its principal city of Messina, the terminus of a railway along the coast to Syracuse, is nearly opposite Reggio (ancient Rhegium), which is 9 m. s.e. across the straits of Messina, the most noted city of s. Italy.

MESTIZO, a Spanish word meaning literally mongrel, derived originally from the Latin *mixtus*, and used in Spanish-American communities to denote the offspring of a white or creole and an Indian. A feminine form, *mestiza*, is also in use; and the word *mestiuo* is but another form of *mestizo*. In Mexico and Brazil are very large numbers of the mestizos, who are very light complexioned and have a remarkably clear skin, thin beards, and oblique eyes. The creole offspring of a mestiza and a white man differ very slightly from those of pure white descent. The child of a metiza mother and an Indian father is called *mestizo-claro*, and many of this class are of very remarkable beauty. The offspring of a mulatto and mestiza is a *chino*; of a negro and a mestiza, a *mulatto-oscuro*; and there are many other similar terms used by the whites to denote different admixtures of European, creole, Indian, and negro blood.

MÉSZÁROS, LÁZÁR, 1796-1858; b. at Baja, in Hungary. He at first studied the ology, and afterwards became a law student in the university of Pesth. He became a volunteer in the Hungarian army in the war with Napoleon and gained a high reputation for gallant conduct in the campaigns of 1813-15. He rose gradually in rank, and in 1848 was col. of a hussar regiment, at which time Batthyáni became president of the new ministry, with Kossuth as minister of finance, and the rule of Metternich was overthrown. Mészáros was placed at the head of the war department, and though opposed to the adoption of extreme measures was most valuable in the reorganization of the Hungarian forces. Austria having declared its intention of subjugating Hungary, he left his place in the diet and took the command of the attempt against the Rascians in his native district, Bács. This proved a complete failure, and in Jan., 1849, his army was defeated with great loss before Kaschaw. In April of the same year the declaration of independence was issued; Mészáros was given an important command, and in conjunction with Dembinski led the patriot army which was defeated at Szöreg and Temesvár; he then fled to Turkey and was sentenced *in contumaciam* and hung in effigy by the Austrians. After residing for some years in England, France, and the island of Jersey, Mészáros emigrated to the United States, and became a citizen of Flushing, L. I. He died at Eywood, Herefordshire, England, while on his way to visit Switzerland.

MET'ALINE, a metallic compound invented in 1870 by Dr. Stuart Gwynn of New York, and used in place of lubricants to counteract the friction of machinery.

METAMORPHIC ROCKS (*ante*), geological formations which have undergone alteration of structure and sometimes of constitution. The subject of metamorphism has within a few years received much attention from geologists, and a great increase of knowl-

edge has been the result. Rocks, such as granite, which were not many years ago regarded as primitive and older than all others, are now known to be of all ages and the result of changes or metamorphisms of other rocks. The word primitive is abolished in geology in its former absolute sense, and is only used to denote the first condition of any formation, whether old or recent. The general principles of metamorphism are treated in the article GEOLOGY. Metamorphic rocks are produced from the various sedimentary rocks, and also from volcanic products; but the chief source is the sedimentary rocks. The geological ages which have produced the greatest amount of metamorphic rocks are the Laurentian and Huronian. The Laurentian age commences in azoic time, and if the term primary could be applied to any formation it would be to the older of the Laurentian rocks; but it cannot be stated positively that they were the first formed, or, if so, that they have not undergone great alteration. In the Laurentian formations there are found many limestones, but it cannot be demonstrated that they are produced from shells, or that they contained animal life, except *Eozoön Canadense* be regarded as such. See Eozoön. These Laurentian or archæan rocks extend over the whole globe, and either they or the rocks of which they are the metamorphosed products composed the floor of the first ocean, and constituted the foundation upon which the first life was developed. The action of water and heat caused sedimentary deposits, and when the heat was sufficiently reduced life began, and became, in some degree, an element in the process. The principal areas of archæan rocks in North America are in British America, extending in broad lines from the region of lake Superior north-west to Alaska, on one hand; and on the other, to Labrador, having the form of the letter V, inclosing Hudson's bay within the triangle. There is a much smaller region called the Adirondack, lying in the counties of Essex, Clinton, Franklin, St. Lawrence, Hamilton, and Warren, N. Y., and also an Appalachian line of Laurentian rock, including the highland ridge of Dutchess county, N. Y., and, passing through New Jersey, Maryland, and Virginia, forming the Blue ridge, and a long rocky mountain series, embracing the Wind River mountains, the Laramie range, and other summit ridges of the Rocky mountains. The rocks include granite (q.v.), gneiss (q.v.), mica schist (q.v.), mica slate (q.v.), talc (q.v.), chlorite (q.v.), pyroxene (q.v.), hornblende (q.v.), serpentinite (q.v.), chrysolite (q.v.), apatite (q.v.), and plumbago (q.v.), which is supposed to have a vegetable, but may have had an entire mineral or inorganic origin. The archæan rocks are rich in iron-bearing minerals, as for example in the Missouri Iron mountain, containing magnetite, Fe_3O_4 , and hematite, Fe_2O_3 . Some of the beds are several hundred feet thick. Crystalline limestone, often occurring as statuary marble, is one of the rocks found in the archæan formations. See MARBLE. Nearly all geologic ages have produced metamorphic from sedimentary rocks, such as sandstone (q.v.), shale (q.v.), argillite, or clay slate (see ARGILLACEOUS ROCKS), massive limestones (see LIMESTONE), magnesian limestone (see DOLOMITE), hydraulic limestone (see CEMENTS), and occasionally volcanic products, as tufa (q.v.). Sandstones have passed into quartzite, quartz rock, or granular quartz. See QUARTZ Rock in QUARTZ, *ante*.

METAMORPHOSIS OF ANIMALS (*ante*). In the development of an animal the embryo may pass through all the stages of growth to a condition which differs from the adult only in size, proportion, and sexual characteristics, having thereafter only to be nourished to attain full development; or it may leave the egg in a condition remote from that of the adult, and then pass through a greater or less number of stages of distinctly marked characteristics. Each one of these stages is a metamorphosis, and collectively constitute the metamorphoses through which the animal passes. "When metamorphosis occurs the larva may live under conditions totally different from those under which the adult passes its existence. Thus the larva of an animal which is fixed in the adult state may be provided with largely developed locomotive organs; while that of an adult which feeds by suction may be provided with powerful apparatus for the seizure and manducation of vegetable and animal prey. The larva of a free adult may be parasitic, or that of a parasitic adult free and actively locomotive. Moreover, the whole course of development may take place outside the body of the parent, or more or less extensively within it; whence the distinction of *oviparous*, *ovoviviparous*, and *viviparous* animals" (Huxley). An example of that kind of metamorphosis in which non-parasitic larvæ become parasitic pupæ and adults is seen in the *rhizocephala*. See INVERTEBRATE ANIMALS, sub-kingdom annulosa, class crustacea, order rhizocephala. For further information see various parts of the article on INVERTEBRATE ANIMALS, and also INSECTS, *ante*, and LOCUSTS, and GRASSHOPPERS.

METAPONTUM, or METAPONTIUM, an ancient city of Magna Græcia, Italy; 24 m. from Tarentum, and 14 from Heraclea. It was founded by an emigrating tribe of the Achæans as early as 700 B.C., and perhaps before that time. In 415 B.C. we find the inhabitants allies of the Athenians in their invasion of Sicily, and for some time previous the town had evidently been in a condition of constantly increasing prosperity. Here the philosopher Pythagoras spent his last days, and in classical times his tomb was still to be seen. In the wars waged against Rome by Pyrrhus and Hannibal, the Metapontines were hostile to the imperial city. At the end of the war of Pyrrhus they were subjugated completely by the Romans, and in 212 B.C. succeeded in throwing off the yoke by admitting the Carthaginians. When the latter retreated from Italy the

Metapontines, fearing the vengeance of Rome, fled with Hannibal; and the city was deserted, and soon fell into ruins, some of which may still be seen.

METASTASIS, a change in the seat of a disease from one part of the body to another. Rheumatism and gout are examples. Muscular rheumatism is more or less movable, changing from one set of muscles to another. Arthritic rheumatism is more liable to change persistently from one joint to another, or it may pass to an analogous tissue in another kind of organ, as to the serous membranes of the heart, or pericardium, constituting cardiac rheumatism, a dangerous affection. Gout is well known for its flights from one point to another. Inflammation of the parotid gland, or mumps (q.v.) is also a metastatic affection. The causes of metastasis are rather obscure, but they are undoubtedly intimately connected with the nervous system, whose terminal fibers, ending as they do in the cellular elements of the tissues, influence, in a great measure, their pathological as well as physiological action.

METCALFE, a co. in s. Kentucky, drained by the south fork of Green river, which rises within its limits; 370 sq.m.; pop. '80, 9,423—9,414 of American birth, 1036 colored. Its surface is varied, and largely covered with timber. Its soil is fertile, producing large quantities of tobacco, and suited to the production of wool, sweet-potatoes, the products of the dairy, flax, maple sugar, sorghum, honey, fruit, and every kind of grain. Stock-raising receives much attention, and its grist-mills are run by steam. Seat of justice, Edmonton.

METCALFE, **FREDERICK**, b. England, 1817; a distinguished scholar and educator, having pursued the regular course of study at the university of Cambridge, graduated in 1838, and was elected fellow of Lincoln college, Oxford. In 1848 he accepted the position of principal of the Brighton college, an institution founded in 1847 for the sons of noblemen. In 1844 he published a translation of prof. A. Becker's *Gallus*, or *Roman Scenes of the Times of Augustus*, with notes and exercises, considered of great historical value; 2d edition, 1853. In 1845 a translation of Becker's *Charicles*, a tale illustrative of private life among the ancient Greeks, with notes and exercises. He was the author of *History of German Literature*, based on the German work of Vilmar, 1858; other works are *The Oxonian in Norway*, or notes of excursions in that country, 1856, *The Oxonian in Thelemarker*, 1858, *The Oxonian in Iceland*, 1861, and an adaptation, for use in schools, of Whittaker's edition of Dr. Charles Anthon's *Virgil*, 1846.

METEOROLOGY (*ante*). The advancement in meteorological science in recent years has been mainly in the direction of the application of the laws of storms to practical use, in foretelling perturbations in the interest of commerce and navigation. In this direction great progress has been made, as to which, see **SIGNAL SERVICE OF THE UNITED STATES**. From the accumulation of statistics and history in this department, the following information concerning the government and private machinery for meteorological observation in different countries, is compiled: The first international meteorological congress occurred at Vienna, in September, 1873, when eighteen governments were represented by delegates officially appointed. This congress had been preceded by the Brussels maritime conference in 1853, the conference at Leipsic in 1872, and the meeting at Bordeaux in the latter year. The object of these meetings was to establish an international and reciprocal meteorological system for the benefit of the countries participating, and indeed of the civilized world. This object was so far effected that a strong interest was awakened in the subject on the part of the different governments, and a permanent committee was appointed which holds annual meetings. Among those—and chief among them—who have labored unselfishly to awaken interest in the study of the laws of storms should be ever remembered the names of Redfield, Espy, Fitzroy, Reid, and Maury; besides Humboldt, Dove, Ritter, Sabine, Kämtz, and Herschel, who preceded them in the same field. Through the efforts of some of these meteorologists the information gained by the experience of navigators has been collated and analyzed, and a very complete knowledge of ocean meteorology has been obtained; while the storms of the Indian ocean and the law of cyclones have been studied by Meldrum, with the assistance of the Mauritius meteorological society, to the great advantage of the world's information on the science. The first effort in the direction of making regular meteorological observations in the United States was made in 1818 at military posts, under the direction of surgeon-general Lovell, and as these are still continued, they form the oldest unbroken national series of the kind in existence. Certain of the states afterwards entertained the idea, and New York from 1825–1863, Pennsylvania 1836–1842, Ohio in 1842, and Illinois in 1856, formed organizations for the same purpose, but which have all been discontinued. Besides the information obtained from these sources, there has been much service performed in a desultory way by the Franklin institute, Smithsonian institution, state boards of health, agricultural and geological societies, and other organizations, as well as by special expeditions. Half a century ago, James P. Espy, an enthusiast, as well as a clear-headed observer, devoted himself to the study of meteorology, and by lectures and writings sought to popularize the subject. In 1836 he wrote a memoir which gained for him the Magellanic premium awarded by the American philosophical society; and in 1841 appeared his *Philosophy of Storms*, which publication completely revolutionized the sum of scientific opinion on the subject. The following year he was appointed meteorologist in the surgeon-general's office of the war department, and having

already begun the practice of weather-mapping, he continued it daily. His first published report in 1843 is acknowledged to have been "by far the most important contribution to our knowledge of storms that had then been made by any government in the world." This was in 1843; and on Mr. Espy being transferred to the navy department, he published two other reports, dated 1849 and 1851 respectively. His fourth report was made to the U. S. senate in 1854. Mr. Espy died in 1857, at the age of 72, having devoted forty years of his life to meteorological study and investigation. Thus much is here given concerning this remarkable man, because of the influence which he exerted, and which doubtless gave the timely impetus that resulted in placing the United States in the front rank among those nations that have given its due importance to the study of meteorology. This study, with its accompanying record of observation, is prosecuted in the United States at the following points, 1. The independent observatories at Cambridge, Washington, Albany, and New York Central Park. 2. The state weather services of Iowa, receiving reports from 80 observers; Missouri, with 100 observers; and Nebraska; which all publish monthly reviews and annual reports. 3. The state boards of health for Michigan, New Jersey, etc. 4. The state boards of agriculture for Illinois, Ohio, etc. 5. The state schools of agriculture at Lansing, Mich., and Boston and Amherst, Mass. 6. The Central Pacific railroad company land office, which receives reports from 120 stations. 7. The army engineer bureau lake survey, which has maintained 8 or 10 important stations on the lakes. 8. The geological and geographical surveys of western territories (Wheeler's, Hayden's, Powell's, etc.), and the U. S. coast survey. 9. The hydrographic office of the navy department, which maintains an hourly series of observations on every vessel in commission, and at all naval stations, and publishes important charts relating to ocean meteorology. 10. The army surgeon-general's office, the Smithsonian Institution, and the agricultural department. Of these three the first continues its observations and the second its publications, although most of the data are transferred to the army signal office. 11. The army signal office, division of reports and telegrams for the benefit of commerce and agriculture. This last-named organization, whose meteorological work began by order of congress in February, 1870, far exceeds all other similar organizations in the world. It maintains 166 regular, 28 sunset, 30 river, and about 10 temporary West India stations. It also receives reports from 95 army-post surgeons, 300 voluntary civilian or Smithsonian observers, 120 railroad employes (mostly in California), about 150 observers through the state organizations in Iowa, Missouri, and Kansas, about 40 vessels and stations of the navy, about 20 merchant vessels through their respective owners, and about 390 foreign stations through the central offices of their respective countries. Rainfall reports are thus obtained from about 870 stations within the United States. It publishes a tri-weekly bulletin and map, with predictions based on tri-daily telegraphic reports from 35 additional stations; displays cautionary storm-signals at about 80 coast stations; bulletins the state of the rivers and coming floods; distributes farmers' bulletins or predictions to over 6,000 post-offices; furnishes special predictions to several hundred railroad telegraph offices; and publishes a weekly weather chronicle, a monthly weather review with charts of American storms, temperature, rain, and ocean storms, and an annual report. It also prints for exchange a daily bulletin of international simultaneous observations, with daily chart of the winds, temperature, and pressure throughout the northern hemisphere. This is based on about 700 reports from land and sea contributed by all nations, and made simultaneously with those that are made at 7 h. 35 m. A.M. at Washington, or 12 h. 43 m. P.M. at Greenwich. In the prosecution of its meteorological work and in order to carry out the system of frontier defenses, and in coöperation with the life-saving service on the United States coast, the signal service also builds and maintains lines of telegraph, of which it now controls about 3,000 m. on the Atlantic coast and in the s.w. and n.w. territories. The service employs the whole time of about 15 officers and 475 men, and a portion of the time of about 150 others. The meteorological service of foreign countries is now sustained as follows (1878): West Indies.—Numerous stations are supported in these islands by the respective home governments. The U. S. signal service maintains about 10 stations during the hurricane season. The principal independent stations are at Havana, Cuba; Kingston, Jamaica; and in Barbadoes and Porto Rico. Great Britain.—The meteorological committee of the royal society have charge of the meteorological work, with office in London. There are 7 stations properly equipped, receiving telegraphic reports from 29 British stations, and publishing daily weather-maps, bulletins, storm-warnings and signals, quarterly and annual reports, etc. It receives observations from several hundred vessels at sea, and from about 80 voluntary observers on land, besides minor stations. The medical department of the army also maintains observers at the forts throughout the British colonies, some of which report to the London office. The royal engineers and ordnance survey offices also maintain several stations. The different meteorological societies of the empire publish memoirs which contain reports from different stations. Wind and current charts and pilot charts are published by the hydrographer to the admiralty, based on observations made on shipboard. France.—Observations are maintained since 1878 by the bureau centrale de météorologie, the departments of France preserving their separate organizations. The meteorological association of France has its own stations. The bureau centrale publishes daily bulletins, weather-charts and storm-warnings, and in conjunction with the association scientifique de France, issues the

annual volumes of the *Atlas météorologique de France*. The meteorological association corresponds with about 50 observers in different parts of the world. Germany.—The headquarters of the meteorological system is in Hamburg, and maintains about 40 stations (27 telegraphic), publishes daily weather-maps and predictions, storm-warnings, and monthly weather reviews, and receives a large number of logs from German vessels. The German forest commission maintains several stations for meteorological observations. There are subordinate organizations with stations in Bavaria, Baden, Prussia, Saxony, and Württemberg; with headquarters respectively at Munich, Carlsruhe, Berlin, Leipsic, and Stuttgart. The whole number of well-equipped stations in Germany is about 200, and slowly increasing. Russia.—Observations are made at most of the universities, and published in full independently at Dorpat, Helsingfors, Tiflis, and Moscow. The central meteorological office is at St. Petersburg, and receives reports from 130 well-equipped (50 telegraphic), 220 rainfall, and 310 thunder-storm stations, distributed throughout the Russian possessions, abstracts of which are published annually. The central office publishes a daily telegraphic bulletin, displays storm-signals, and publishes volumes of memoirs and investigations. The academy of sciences and the geographical society aid in the advancement of the study. Italy.—Numerous independent meteorological organizations exist, the Italian alpine club publishing observations made at about 70 stations; and the observatories at Mocalieri, Turin, Pesaro, Venice, Naples, and Rome, issuing their own observations. A general Italian meteorological association was organized in 1877. Spain.—The central meteorological office is at Madrid, and receives reports from 30 home stations including Portugal (26 telegraphic), all of which are published annually. A daily telegraph bulletin is published, and storm-warnings are issued when sent from Paris or London. In the Spanish colonies, the most important stations are at Manila and Porto Rico. Portugal.—The meteorological observatory at Lisbon receives reports from 5 home and as many colonial stations, and from the vessels of the Portuguese navy. The observations made at Coimbra and Lisbon are published in full. It publishes a daily telegraphic bulletin (10 telegraphic stations), and repeats the storm-warnings sent from London and Paris. Belgium.—The royal observatory at Brussels receives reports by telegraph from 4 stations, and publishes daily weather-maps and predictions, annual volumes of its own detailed observations, and of 4 Belgic and 4 Dutch international and of 35 Belgic climatologic stations; also an *annuaire*. Austria and Hungary.—The central meteorological institution at Vienna has charge of all observations made in the empire, and receives reports from about 275 stations (26 by telegraph, daily); it publishes a daily bulletin, storm-warning signals, and annual volume of observations. In Bohemia there are about 50 rainfall stations, and a similar system is arranged for Styria. The hydrographic office has charge of marine meteorology, with a school at Trieste and observatory at Pola. There are also independent observatories at Cracow, Prague, and Vienna, which publish their own observations. The central magnetic and meteorological institution for Hungary is at Buda-Pesth, and was founded in 1870. It publishes annually reports from about 100 stations, mostly well-equipped. A summary for 32 stations in Carinthia is published monthly at Klagenfurth. Norway.—The royal meteorological institute at Christiania receives reports from 10 full stations (7 telegraphic), 10 lighthouses, and a large number of minor stations, and logs of vessels. A telegraphic daily bulletin has been published since 1861. The meteorological observatory at Christiania was founded in 1836. Sweden.—About 30 stations (9 telegraphic) and several naval vessels report to the central meteorological institute at Stockholm, which publishes a daily telegraphic bulletin and annual volumes. The Lund and Upsala observatories publish their own observations separately. Switzerland.—The central institute for Swiss meteorology has its seat at Zürich, and publishes in full the observations at about 15 stations. The total number of reporting stations is about 80. The observatories at Bern and Geneva publish their own work in detail. The central office is maintained by the Swiss association and not by the state. There are stations in Africa—in the Transvaal, at Zanzibar, Natal, and other places, besides those in the large colonies; in Algeria observations are made under the direction of the military authorities, a daily weather bulletin and chart are published, and about 20 observing stations are maintained; at Cape Colony there is a meteorological commission instituted in 1861 and reorganized in 1874. It receives reports from 30 or 40 stations: the royal observatory at Cape Town maintains an independent series of observations. Australia.—The several provincial governments maintain systems at Queensland, 5 telegraphic stations; New South Wales, 190 stations (35 telegraphic); South Australia, 110 stations (5 telegraphic); Victoria, about 40 stations (27 telegraphic). The central offices of these are at Brisbane, Sydney, Adelaide, and Melbourne; there are also individual stations at Melbourne, Windsor, and Hobart Town, which publish their own observations. Ceylon.—About 30 stations report to the surveyor-general at Colombo, and the reports are partially published. China.—Instruments for equipping about 20 stations were obtained in 1874, but we have no reports. Egypt.—The principal service is that of the lighthouse keepers, though observations are made at the observatories near Cairo and at Alexandria, and on the Suez canal. Japan.—Observations are made at the imperial observatory and at the imperial colleges of mining and engineering, and a system of records is preserved by the lighthouse keepers. Reports will be soon forthcoming also from about 20 equipped stations. New Zealand.—About 20 meteorological stations are

maintained. Philippine islands.—The observatory of the Jesuit college at Manila, in Luzon, is the only station permanently occupied, and publishes annually its observations. Netherlands.—The central meteorological institute maintains 14 full and 23 minor stations (4 telegraphic), issues storm-warnings, and publishes annual volumes. There are a large number of rainfall stations. Its most important colonial station is at Batavia. Denmark.—The royal Danish meteorological institute receives reports from 12 principal (8 by telegraph) and 70 minor stations in Denmark, also 5 from Iceland and 5 from Greenland. It publishes daily bulletins, annual volumes, and a daily chart of the Atlantic ocean. Finland.—The scientific association at Helsingfors maintains 22 stations and publishes its own results. The observatory at Helsingfors is independently maintained. India.—The provinces of Bengal, the Punjab, the Northwest, Madras, etc., maintain independent systems of meteorological reports. In 1875 a general meteorological office was established in the department of revenue, agriculture, and commerce. About 300 stations report by mail to the head of this office daily, and about 50 by telegraph. It publishes daily, weekly, and monthly bulletins, and special storm-warnings. Chili.—An extensive system of observations is maintained at Santiago, receiving regular reports from 13 or more stations. Costa Rica.—There is a central office for statistics and meteorological observations, and a station at the capital. Argentine Republic.—The meteorological office is attached to the astronomical observatory, about 30 voluntary observers reporting. There are also scattered stations in South America, at Quito, Lima, Rio Janeiro, Georgetown, Surinam, and Trinidad. Mexico.—A central office in the capital publishes a daily telegraphic bulletin from about 30 stations, and monthly summaries. Canada and Newfoundland.—The Canadian meteorological office is under the minister of the marine, who receives reports from about 20 first-class (14 by telegraph) and about 140 minor stations, distributed throughout the British possessions. It issues daily weather predictions and storm-warnings, and displays storm-signals. Turkey.—The central observatory at Constantinople receives reports from about 30 stations, publishes a daily telegraphic bulletin of 17 stations, and its own observations in full, and issues storm-warnings. Syria.—Observations are maintained at the Syrian college (Protestant mission) in Beyrout, and a more extended system is understood to have been recently organized under the British and American "Palestine Exploration" societies. Mauritius.—The meteorological association of Mauritius was established in the year 1851. It has published irregularly monthly notices, maintains a large number of rainfall stations, and gives warning of such storms as are evidently about to make themselves felt in the vicinity of the island. Beyond this there is no mention of any meteorological work progressing here.

METER (*ante*). It is probably that in reality the meter of the French archives is not exactly what it was supposed when determined; for the measurement was made upon the supposition that the earth is a regular spheroid having an ellipticity of $\frac{1}{305}$, but it is more probable according to the investigations of gen. Schubert of the Russian army and capt. Clarke of the British ordnance survey that it has three unequal axes, and that the Paris meridian is a very little longer than was computed by the French mathematicians. Their measurements were accurate and the computations upon them, but they measured only 10° of the Paris meridian, and from this deduced the length of the quadrant. It has, however, been computed that if there be an error in the calculation of the French meridian, the prototype meter of the archives is as near as possible the $\frac{1}{10000000}$ part of the quadrant of the meridian which passes through New York.

In consequence of the discussion it was deemed advisable to have a meeting of an international commission to settle the question; 30 independent powers were represented in the commission which assembled at Paris in 1870. Their deliberations were interrupted by the Franco-Prussian war, but were resumed, and resulted in an international convention which established at Paris an international bureau of weights and measures supported by contributions of the participating powers. This bureau was given the care of the prototype standards, and other matters connected with the establishment of the system, and its adoption by other powers. The commission came to the conclusion that the prototype meter, and also the kilogram of the archives, shall be recognized as standards irrespective of any doubts as to their variation from the theoretical value of the Paris meridian. See **METRIC SYSTEM**.

METER, GAS. See **GAS, LIGHTING BY**, *ante*.

METHODIST CHURCH, FREE, organized in 1860 at Pekin, N. Y., by a convention of ministers and laymen who were, or had been, members of the Methodist Episcopal church. The various reasons which led to the movement may be summed up in the conviction avowed that the Methodist church had declined from its original simplicity and spirituality. In proof of this it was alleged that many converts had been received without sufficient evidence of repentance and conversion; that worldly practices were tolerated, and engaging in unlawful business was allowed; that the direct witness of the spirit was wanting in many professed Methodists; that power over all sin was not possessed, and that, while entire sanctification was not often even professedly attained, the preaching concerning it was widely divergent and contradictory; that discipline was generally neglected, and by some abandoned; that simplicity in dress had given place to fashionable attire; that free seats had been exchanged for pews; that choirs and organs

had broken up congregational praise; that sermons were often read instead of being preached; that very costly church edifices were built and church fairs held; and that oath-bound fellowship in secret societies with irreligious men was tolerated, and even encouraged. In the new organization, bishops were exchanged for general superintendents, to be elected every four years. Quadrennial, annual, quarterly, and district conferences are held, and lay delegates equal in number to the ministers are admitted. The official board is retained. Attendance at class meetings is made a condition of church membership. The preachers in charge nominate, and the classes elect their leaders. The office of presiding elder is retained under the name of district chairman. The articles of faith are the same as those of the Methodist Episcopal church, with two additional: one designed to give emphasis to the doctrine of entire sanctification, and the other to that of endless future rewards and punishment. No persons are admitted to church membership, even on probation, without professing to exercise saving faith in Christ. All members are also required to lay aside all superfluous ornaments of dress, to abstain from the use of intoxicating beverages and of tobacco, and not to join any society requiring an oath, affirmation, or promise of secrecy as a condition of membership. The denomination has made some progress and cherishes the hope of reviving the spirit of primitive Methodism. Their religious services have much of the early warmth and zeal, and congregational singing is universally practiced among them. They have two literary institutions, one at North Chili, N. Y., and the other at Spring Arbor, Mich.: they are conducted in strict accordance with the principles of the denomination, and are making fair progress. The work of the church has been among the poor and less educated classes, whence chiefly their ministers have been taken. They have not as yet had time or opportunity to build up a denominational literature. A monthly magazine entitled *The Earnest Christian*, and a weekly paper, *The Free Methodist*, are well sustained. Several writers of considerable practical power are highly esteemed within and beyond the denomination. In 1880 they reported 271 itinerant ministers, 328 local preachers, and 12,642 lay members.

METHODIST EPISCOPAL CHURCH (METHODISTS, *ante*) is the name assumed by the Wesleyan Methodists in this country when, after the attainment of national independence, they were organized as a denomination, under rules proposed by John Wesley and adopted by themselves. I. Their doctrine is set forth in 25 articles, formed from the 39 of the church of England by omitting some of them entirely and modifying several of the others, with the design to offer a broad and liberal basis on which the general body of evangelical Christians might unite together in brotherly love. Since 1834 a restrictive rule has removed from the authorities of the church all power to revoke, alter, or change these articles of religion; or to establish any new standards or rules of doctrine contrary to the existing and established doctrinal standards. Their theology is styled by themselves "Arminian," according to what they consider the true import of the name as exhibited in Wesley's doctrinal sermons, *Notes on the New Testament*, and other writings. They adopt his doctrine concerning the "witness of the Spirit"—called by many "assurance"—which he defines as "an inward impression on the soul, whereby the spirit of God immediately and directly witnesses to my spirit that I am a child of God; that Jesus Christ hath loved me and given himself for me; that all my sins are blotted out, and I, even I, am reconciled to God;" and in making this impression Wesley supposes that the Holy Spirit "works upon the soul by his immediate influence, and by a strong, though inexplicable, operation." They generally hold, also, the doctrine which many call "sanctification," or, as Wesley preferred to say, "Christian perfection," and which, as the intelligent among them affirm, negatively "teaches no state, attainable in this life, like that of the angels, or of Adam in paradise, or in which there is an exemption from mistakes, ignorance, infirmities, or temptations;" but positively, "that all saints may, by faith, be so filled with the love of God that all the powers of the soul shall be recovered from the abnormal, perverted, sinful condition, and, together with the outward conduct, be controlled in entire harmony with love." II. The government of the Methodist church is administered in a series of 5 conferences (see CONFERENCES OF THE METHODIST EPISCOPAL CHURCH), in addition to which the leaders' and stewards' meeting, presided over by the pastor and consisting of all the class leaders and stewards of his charge, has important functions connected with the well being and efficiency of each particular church. Evangelization, to extend the work, and supervision, to secure firmly all advantages gained, were at the beginning the two fundamental principles adopted, and they are still diligently maintained. The bishops preside in the conferences; form the districts according to their judgment; appoint the preachers to their fields, permitting none to continue more than three successive years in the same charge, except the presiding elders, whose term may extend to four years, and a few others by special appointment; ordain deacons, elders, and bishops newly elected; travel through the denomination at large, and oversee, in accordance with the rules of the general conference, the spiritual and temporal affairs of the church. They have no particular dioceses, but exercise a joint jurisdiction over the whole church as an itinerant general superintendency. They annually arrange and divide the work among themselves, being responsible for its performance to the general conference, by which they are elected and have their respective residences assigned. As an elder was originally put in charge

of a district containing several circuits, he was practically a presiding officer over them. Thus the office of presiding elder was gradually established, and became very useful. It is a sub-episcopate, charged with the duties of oversight and administration in a limited sphere, and makes the ecclesiastical system complete and strong. Their intimate acquaintance in their districts with both pastors and people, and their presidency in the quarterly conferences, enable the presiding elders to give valuable information and counsel to the bishop in arranging the appointments. In doing this, usage makes them the bishop's advisers, but with no actual authority, as the church considers it wise to put the whole responsibility of the appointments on the bishop. Candidates for admission to an annual conference are put on probation for two years in the itinerant work, and are subjected to a thorough examination in prescribed studies; and all who are approved in these trials are ordained deacons; and in two years more, if they complete the required studies, they are ordained as elders. The former administer baptism, solemnize marriage, assist elders in administering the Lord's-supper, and perform all the duties of a traveling preacher; and the latter, in addition to these, administer the Lord's-supper. An elder, deacon, or preacher, may be in charge of a circuit or station with similar functions, except as to the administration of the sacrament. He is the chief executive officer of the local church, charged with the care of its interests according to the requirements of the discipline; and is responsible to the annual conference for his fidelity in performing all his ministerial duties, and for his moral deportment. In subordination to him, class leaders, or sub-pastors, have the special oversight of small portions of the church members whom they meet weekly for "social religious worship, and for instruction, encouragement, and admonition." Local preachers have a share in the acts of the district and quarterly conferences; and as a lay ministry form a body of self-supporting evangelists more numerous than "the itineracy," which, in many sections of the church and various phases of society, has been very useful. All church buildings and parsonages belong to the local society, and are held by trustees chosen according to the law of the state or territory wherever a particular mode is prescribed, and in other cases by the quarterly conference. Admission to membership in the church is preceded by a probation of six months or longer, as may be determined in particular cases, after which the probationer may be admitted to full membership by complying with the rules prescribed. Members of other evangelical churches, coming with proper testimonials, are received into fellowship without probation.

III. PROGRESS OF THE CHURCH. 1. *Pioneer Work.* Methodism, says the historian of the church, presented itself to the new nation as an Episcopal church with all the necessary functions and functionaries of such a body; the only one of Protestant denomination, for the colonial fragments of the English establishment had not yet been reorganized. Led by their bishops, the itinerants went forward in their work, convinced, as they said, "that they were raised up to reform the continent, and to spread scriptural holiness over these lands." Thus, "feeling that their one great work was to save souls," they retained and built up what had already been gained, and, pressing on into new fields, preached wherever hearers could be found. Crossing the Alleghanies they were always with the advance, and were soon found also in New England, Canada, and Nova Scotia. Gowns and prayer-books obstructed their progress and were therefore abandoned. Their system was, in a great degree, constructed to meet the exigencies of the work. Their "class and prayer meetings trained most, if not all, the laity to practical missionary labor, and three or four of them, meeting in any distant part of the earth by the emigrations of these times, were prepared immediately to become the nucleus of a church. The lay or local ministry, borne on by the tide of population, were found almost everywhere, prior to the arrival of regular preachers ready to sustain religious services—the pioneers of the church in every new field." At the end of the century they had increased their 15,000 members to 65,000 and their 80 itinerants to 280, besides many who, physically unequal to the strain of the advance, still did their utmost in easier fields. Bishop Coke's stay in the country was only for limited periods, and after 1787 some of the more arduous portions of the episcopal labors devolved on bishop Asbury alone, who was the chief apostle of the church, consecrating to the work all his powers, making himself an example to all in self-denying toil, giving personal attention to minute details, and visiting much from house to house. One of the first Sunday-schools in America was organized by him in 1786, and four years after the conference ordered Sunday-schools to be generally established for the instruction of "poor children, white and black, in learning and piety."

2. *Denominational Institutions.* (1.) "The Book Concern." In 1788 a "book steward" was appointed, and a borrowed capital of \$600 obtained. In 1804 the concern was removed from Philadelphia to New York, and subsequently enlarged the number of its publications, scattering them through the circuits by making all the preachers agents, who, although too busy to write books, could sell them and thus greatly increase the efficiency of their work. In 1818 the *Methodist Magazine* was commenced, and, now called the *Methodist Quarterly Review*, has attained a high rank among religious journals, and has a considerable circulation. In 1820 *Zion's Herald* was commenced by the New England Methodists, and was followed, four years after, by the *Christian Advocate*, the first weekly religious paper published by the book concern. A second publishing house was opened at Cincinnati in 1820; and in 1833 the New York house was removed to larger quarters in Mulberry street, which, in 1836, were consumed by fire at a loss of \$250,000. New and better

buildings were soon erected on the site, which, having been subsequently enlarged to meet the constantly increasing business, are now used only in the manufacturing of books. The principal office is in the building provided for it and the missionary society, at an expense of a million dollars. (2.) "The Preacher's Fund." From the beginning of their history Methodists have had regard to the wants of their sick and superannuated ministers, and of deceased ministers' destitute families. Funds for their relief have been raised in various ways and have been designated by different names. At present the principal dependence for this purpose is on the contributions of the congregations, which now yield annually \$150,000. (3.) "The Missionary Society." The Methodist church itself is justly regarded by its members as one of "the great home-mission enterprises of the North American continent," and for a long time it called for all their resources of men and money. The conference of 1784 ordered a collection to be taken annually in all the principal congregations. While the constant extension of the church was thus a missionary movement, further progress was marked in 1819 by the organization of the missionary society, which, having primary reference to home work, joined with that also the foreign field; in this last its operations, having been gradually extended, now embrace missions in Africa, China, India, Japan, Germany, Switzerland, Denmark, Norway, Sweden, Bulgaria, Italy, Mexico, and South America. Its work is aided by the woman's foreign missionary society, Sunday-school union, tract, freedman's aid, and church-extension societies. (4.) "The educational work began with the church itself." The plan for an academic institute was formed in 1780, the foundation of a building for it being laid at Abington, Md.; and in 1787 Cokesbury college was opened. Its curriculum included "English, Latin, Greek, logic, rhetoric, history, geography, natural philosophy, astronomy, and, when the finances admit of it, Hebrew, French, and German." This building having been burned in 1795, a new one was provided in Baltimore; but in a year this also was lost in the same way. This repeated calamity led bishop Asbury to think that the attention of Methodists should be given to the general establishment of schools from which the high-sounding name of colleges might be withheld. One such school he wished to see in every conference. In 1820 the general conference recommended that each annual conference should establish a school for itself. Several conference schools were soon started, and within 12 years five colleges were founded. These were followed by theological seminaries which, at first, were called biblical institutes. The first projected was located at Concord, N. H., in 1847; and, having been afterwards removed to Boston, became, in 1871, the theological department in the university there. The Garrett biblical institute at Evanston, Ill., founded in 1855, received its name and an endowment of \$300,000 from a lady of Chicago. The Drew theological seminary at Madison, N. J. (see MADISON), was established by the gift of Daniel Drew of New York. There are also schools at several points in the Southern states, in Germany, at Frankfort on the Main, and in India. At the close of the centennial year of American Methodism the church reported 25 colleges and theological schools, having 158 instructors, 5,350 students, about \$4,000,000 in endowments and other property, and more than 105,000 volumes in their libraries; and also 77 academies, with 556 instructors and nearly 18,000 students of both sexes. 3. *Divisions.* (1.) In 1792 James O'Kelly and some other ministers, with a considerable number of members, dissatisfied with the appointing power being vested in the bishop, without appeal, and unable to effect any modification of a system which the great mass of the church cordially approved, withdrew from the denomination and formed themselves into "The Christian Church." (2.) In 1816 the colored members in and around Philadelphia organized themselves into the African Methodist Episcopal church. (3.) In 1820 a similar movement in and around New York resulted in the formation of the African Methodist Episcopal Zion church. (4.) In 1828 the Canada conference withdrew and became a distinct church. This separation was regarded by both sections as a matter of necessity, and was effected without any interruption of fraternal relations between them. (5.) In 1830 the Methodist Protestant church was formed, having at the outset 83 preachers and 5,000 members. (6.) In 1845, at a convention held in Louisville, Ky., impelled by differences of opinion, feeling, and policy on the subject of slavery, the Methodist Episcopal church, South, was formed by the withdrawal of the southern conferences, embracing about 1350 traveling and 3,160 local preachers, with 495,000 members. Through all these divisions and troubles the church pressed on vigorously with its work. During the war of the rebellion it stood with all its moral power on the side of the union, and more than 100,000 of its members entered the armies of their country. Before and after the close of the war it made preparations for celebrating the centenary of American Methodism by all its churches and people "with devout thanksgiving, by special religious services, and liberal thank-offerings," for which the month of Oct., 1866, was set apart. As at the end of the century, notwithstanding its losses, it contained more than a million of members, the hope was cherished that not less than twice that number of dollars would be given to promote its future work. The expected services were held throughout the church, and at the close of the month the total amount contributed was found to be \$8,709,500. 4. *Admission of lay delegates into the general conference.* This important change was inaugurated in 1872, after long consideration throughout the church. The plan adopted provides that "the ministerial and lay delegates shall sit and deliberate together as one body, but they shall vote separately whenever such separate vote shall be demanded by one-third of either order; and

in such cases the concurrent vote of both orders shall be necessary to complete an action." According to official reports for 1880 there are 95 annual conferences; 13 bishops; 11,798 itinerant and 12,620 local preachers, making with the bishops a total of 24,431; churches, 17,111, containing 1,723,147 lay members, on probation and in full connection; 20,754 Sunday-schools, containing 1,793,763 officers and scholars; amount contributed during the year for the support and extension of the gospel, at home and in other lands, not less than \$14,500,000.

METHODIST EPISCOPAL CHURCH, SOUTH (*METHODISTS, ante*), was organized by a convention of delegates from the southern annual conferences which met at Louisville, Ky., May 1, 1845. Its first general conference met at Petersburg, Va., May, 1846. The property belonging to the whole church was divided, through the action of the supreme court of the United States, in accordance with the plan adopted by the general conference of 1844. A publishing house was established at Nashville, Tenn.; a quarterly review, weekly and Sunday-school papers, books, and tracts were printed. All things went on prosperously until the war of the rebellion hindered the work of the church and broke up its institutions. Much of its property was used by others during the continuance of military operations in the south, but the greater part of this has since been restored. The church is fast recovering from the effects of the war. At the separation, in 1844, the southern church contained about 450,000 members. In 1860 the number had increased to 757,205, of whom 207,766 were colored people. During the war these figures were greatly reduced. Some modifications in the government of the church have been made. The annual conferences are composed of traveling ministers and four lay delegates (one of whom may be a local preacher) from each district. The general conference contains an equal number of ministerial and lay delegates. A revised edition of Wesley's abridged liturgy has been published, but is not much used. The ritual and the psalmody have been revised and improved. Much attention is given to Sunday-schools, and many publications for their use are prepared. Seminaries for both sexes, colleges, and universities have been established in different parts of the south. The publishing house has revised and reprinted the standard Methodist works, and have added to them many new books of history, biography, and theology. The publishing house, destroyed, in part, by fire in 1872, has been rebuilt on a much larger scale. The destitute portions of the south, laid waste by the war, require a large amount of missionary labor; and, in addition to this, missions have been established in China, Mexico, and among the Indians. The statistical reports for 1879, the latest that are accessible at the north, give 39 annual conferences; bishops, 6; traveling preachers, 3,867; local ditto, 5,832; members of churches, 822,476; Sunday-schools, 8,941; containing 58,528 teachers and 421,137 scholars. The total amount expended in supporting and extending the gospel at home and abroad is not reported.

METHODIST PROTESTANT CHURCH, organized in 1830 by a portion of the Methodist Episcopal church who, agreeing with the majority in doctrine, were opposed to the episcopacy and to the exclusion of the laity from a voice in the government of the church. Each annual conference elects by ballot its presiding officer, and in all legislation and government the laity and clergy equally participate. The general conference, meeting every four years, is composed of delegates elected by the annual conferences in the ratio of one minister and one layman for every 1000 communicants. Under specified restrictions it has authority to make rules for the government of the church declarative of the laws of Christ; to determine the duties and compensation of traveling ministers, preachers, and other officers; to devise ways and means for raising funds; and to declare the boundaries of the annual conferences. The annual conference, consisting of all the ordained itinerant ministers in the district, elects to orders, stations ministers, preachers and missionaries, makes rules for their support, and declares the boundaries of circuits and districts. The quarterly conference—composed of the trustees, ministers, preachers, exhorters, leaders, and stewards of a district—examines the official character of its members, licenses preachers, and recommends candidates for ordination to the annual conference. The classes, leaders, and stewards are similar to those in the Methodist Episcopal church. In 1858 the Methodist Protestant church was divided by differences on the subject of slavery into the Methodist Protestant church of the north-western states with its headquarters at Springfield, Ohio; and the Methodist Protestants of the southern states, with headquarters at Baltimore. At the time of the division the church contained 2,000 stationed ministers, 1200 churches, 90,000 members, and property worth \$1,500,000. In the hope of a speedy reunion of the separated branches, the Protestant Methodists, North, changed their name to *The Methodist Church*, and removed their headquarters to Pittsburg, Penn. Their college at Adrian, Mich., is flourishing. Their missionary board, while zealously engaged in the home work, has also formed plans for the foreign field. The strength of the Methodist Protestants, South, was principally in Virginia, Maryland, and some parts of Pennsylvania and Ohio. They have three colleges: the Western Maryland, at Westminster, Carroll co.; Yadkin college, North Carolina; and one in Western Virginia. Initiatory steps had been taken with a view to the union of all non-Episcopal Methodists under the title of *The Methodist Church*, but before this was accomplished the two branches of the Methodist Protestants met in convention at Baltimore in 1877 and formed an organic union under the original name of the Methodist

Protestant church. In 1880 the reunited church reported 1314 itinerant ministers, 925 local preachers, and 113,405 lay members. Their headquarters are continued both at Baltimore and Pittsburg.

METHODIUS, a noted theologian of the eastern church of the 3d c.; one of the fathers and martyrs of the church. He was surnamed Eubulus and Eubulius. He was first the bishop of Olympe and Patara in Lycia, hence called Patarensis, and afterwards presided over the see of Tyre and Palestine. He is supposed to have died early in the 4th century. He was a contemporary of Porphyry, and suffered death probably in A.D. 303 or 311. Epiphanius says that "he was a very learned man, and a strenuous asserter of the truth." Jerome ranks him among the church writers. His principal works are: *De Resurrectione*, against Origen; *De Creatis*; *De Libero Arbitrio*; *De Angelica Virginitate et Castitate*, written in the form of a dialogue; *Oratio de Simeone et Anna Seu in Festum Occursus et Purificationis B. Mariæ*.

METHOMANIA. See DIPSOMANIA, *ante*.

METONIC CYCLE, *ante*. The discovery of the Metonic cycle forms an era in the history of the early astronomy of Greece. The Chaldeans established several luni-solar periods; and the difficulty of reconciling the motions of the sun and moon, or of assigning a period at the end of which these two luminaries again occupy the same positions relatively to the stars, had long embarrassed those who had the care of regulating the festivals. The discovery of Meton, therefore, which was brought into use on July 16, 433 B.C., was received with acclamation by the people assembled at the Olympic games, and adopted in all the cities and colonies of Greece. It was also engraved in golden letters on tables of brass, whence it received the appellation of the *golden number*, and has been the basis of the calendars of all the nations of modern Europe. It is still in ecclesiastical use, with such modifications as time has rendered necessary.—The period of Meton consisted of twelve years, containing twelve months each, and seven years containing thirteen months each; and these last formed the 3d, 5th, 8th, 11th, 13th, 16th, and 19th years of the cycle. He divided the cycle into 125 full months of 30 days, and 110 deficient months of 29 days each; the whole exceeding 19 revolutions of the sun by $9\frac{1}{2}$ hours, and exceeding 235 lunations by $7\frac{1}{2}$ hours. A century after Meton, his cycle was corrected by Calippus by quadrupling the period of 6,940 days, and deducting one day at the end of that time by changing one of the full months into a deficient month. By this change the error of lunation was reduced to one day in 304 years. The calendar, as laid down by Ideler, was as follows:

MONTHS.	YEAR OF THE CYCLE.																		
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XIV.	XV.	XVI.	XVII.	XVIII.	XIX.
Hecatombeon.....	30	29	30	30	30	30	29	30	30	30	29	29	30	30	30	29	29	30	30
Metageitnion.	30	30	29	29	30	29	30	29	29	29	30	30	29	29	29	30	30	29	29
Boedromion.....	29	29	30	30	29	30	29	30	30	30	29	29	30	30	30	29	29	30	30
Pyanepsion.....	30	30	29	29	30	30	30	29	29	30	30	30	30	29	29	30	30	29	30
Memacterion.....	29	29	30	30	29	29	29	30	30	29	29	29	30	30	30	29	29	30	29
Poseideon.....	30	30	29	29	30	30	30	29	29	30	30	30	29	29	30	30	30	29	30
Poseideon II. (in leap years).....			30		29		30				30		30			29			29
Gamelion.....	29	30	29	30	30	29	29	29	30	29	29	29	30	29	30	29	30	29	30
Anthesterion.	30	29	30	29	29	30	30	30	29	30	30	30	29	30	29	30	30	29	29
Elaphebolion.....	29	30	30	30	30	29	30	29	30	29	29	30	30	29	30	29	29	30	30
Munychion.....	30	29	29	29	29	30	29	30	29	30	30	30	30	29	30	30	30	29	29
Thargelion.....	29	30	30	30	29	29	30	29	30	29	29	30	29	30	29	29	29	30	30
Sciorphorion.....	30	29	29	29	30	30	29	30	29	30	30	29	30	29	30	30	30	29	29
Number of days in a year.....	355	354	384	354	384	355	354	384	354	355	384	354	384	354	355	384	354	354	384

METRIC SYSTEM (METER, *ante*). The modern or decimal system of measurement takes name from its unit, the meter. It should be understood that all Indo-European nations originally counted by twelves. They were exposed to the influence of Ur-altaic races, who seem to have preferred threes and sixes. From the Egyptians they borrowed the count by tens, and from Shemites periods of sevens, and the double-ten or score. All these systems, complicated with varying units as bases, may be traced in the tables of measurement of modern Europe. Besides, although the value of place in notation was known to the Babylonians—and, in fact, it is not easy to write mixed measurement without assuming it—the general use of decimal notation in Europe dates only from the renaissance. Common measurements, then, do not agree with our notation, and the metric system does. It is not in itself best fitted for treating a universal unit, because it neither divides nor cubes as well as a series of doublings—the binary system. As, for instance,

1	32
2	64..... = 8^2 = 4^3
4..... = 2^2	128.....
8..... = 2^3	256..... = 16^2
16..... = 4^2	512..... = 8^3 etc., etc.

or a count by eights, thus:

Units.	Oktads.	16ads.
1	8 = 2^3	64 = 8^2 and 4^3
2	16 = 4^2	128
3	24	192
4 = 2^2	32	256 = 16^2
5	40	320
6	48	384
7	56	448 etc., etc.,

when $64 = 4^3$ and 8^2 is written $100 = 4^3$ and 10^2 , and $256 = 16^2$ is written $400 = 20^2$. But the binary system is open to the slight objection that it takes eight naughts to express 512, and oktads are evidently more cumbrous than dekads. A system of dodekads would match our multiplication table, correspond better with the traditions of our race, and have the inestimable advantage of possessing 6 and 3 as factors, without which the circle, geometrically considered, can hardly be grappled with. The meter is neither a part of an ascertainable distance nor the true portion of that distance as ascertained; the English yard, 39.13929 in., or the length of a pendulum vibrating seconds of mean time in vacuo, at the latitude of London and the level of the sea, being much more easily and surely measured. The advantages of the metric system are that it is a settled measure, in use by more people than any one other, and that its divisions correspond with what must always remain the notation of the educated world. It was made compulsory in France in 1840, legal in England in 1864, and in the United States by act of July 28, 1866. Its friends have as yet failed to render it acceptable to the nation, and apparently from misconception of the wants and prejudices of the populace. They have not decided upon any neat or consistent way of expressing its abbreviations, so that draftsmen and printers are either unwilling or unable to use them. They have neglected to make for workmen comparative tables giving its equivalents in the measures daily in use by them, and they have never succeeded in giving to the public a few brief rules for interchanging quantities, not necessarily exact, but near enough for hourly use. It is plain that a sudden change in the whole system of measures of a country involves loss of time with perplexity and expense. The advantages of a decimal notation may be shown by retaining some known unit and the popular names, but with change of other divisions; as an English foot, but of 10 in. and running 10 to the pole, etc., very much like the temporary change by the Swiss confederation; or by fixing upon some point which nearly coincides, changing that by legislation to an exact part of the right system, and leaving to time the gradual displacement of the more cumbrous. Thus the addition to an English inch in a yard made equal to a meter is easily made allowance for by tradesmen and workmen on a scale of the present pattern. This seems to account for the failure of the French law of Feb. 11, 1812.

The unit of the system is the METER, one ten-millionth of the calculated distance from the pole to the equator. See CHEMISTRY, *ante* (diagram). By prefixing the Greek words *deka*, *hekto*, *kilo*, and *myria* for multiples, and the Latin *deci*, *centi*, and *milli* for divisionals, there results a series of terms, each increasing by a power of ten. The LITER, or cubic decimeter, of water furnishes a standard for capacity, and a subdivision of it, the GRAM, or cubic centimeter, for weight. We have, then, five kinds of measures, of length, surface, volume, capacity, weight, and (but not carried out) money. It must be noticed that the French law supposes a double and a half to each measure; that many of the divisions have not been adopted in common use; and that certain modifications based on a larger unit have been found convenient in practical and scientific use. One advantage of the decimal system is that when speaking, say of kilom. for distance, or milligr. for weight, we may write 19.736 kilom., or 113.26 milligr., that is without treating them from the scale of meters or liters.

MEASURES OF LENGTH.

Myriameter.....	myriam.	=	10,000	m	=	6.2137 miles.
Kilometer.....	kilom.	=	1,000	"	=	3,280 ft. 10 in.
Hektometer.....	hektom.	=	100	"	=	328 ft. 1 in.
Dekameter.....	dekam.	=	10	"	=	32 ft. 9.7 in.
METER.....	m.	=	1	"	=	39.3707904 in.
Decimeter.....	decim.	=	0.1	"	=	3.937 in.
Centimeter.....	centim.	=	0.01	"	=	0.3937 in.
Millimeter.....	millim.	=	0.001	"	=	0.0394 in.

Surveyors' chains are a dekam., a double or a half dekam. in length. The cable-length is 200 m.

MEASURES OF SURFACE.

Superficial.

SQUARE METER	sq. m.	= 1.	sq. m. = 1,550 sq. in.
Square decimeter.....	sq. decim.	= 0.01	“ or
Square centimeter	sq. centim.	= 0.000,1	10.747 sq. ft.
Square millimeter.....	sq. millim.	= 0.000,001	“

Note that the sq. decim. is not the tenth of a sq. m., but the square of a tenth, a hundredth. It follows that the decimals are read by pairs; thus, 3.532 sq. m. is read 3 sq. m., 53 sq. decim., 20 sq. centim., etc., etc.

Topographic.

Square myriameter, sq. myriam.	= 100,000,000 sq. m.	
Square kilometer, sq. kilom.	= 1,000,000 “	= 0.385496 sq. miles.
Square hektometer, sq. hektom.	= 10,000 “	
Square dekameter, sq. dekam.	= 100 “	

Agrarian.

Hektare.....	hekta.	= 10,000 sq. m.	= 2.471 acres.
ARE.....	a.	= 100 “	= 119.6 sq. yds.
Centiare.....	centia.	= 1 “	= 1150 sq. in.

Myriameters and myriares are used only in geographical or statistical works, and the hektare, like our acre, is the general unit in speaking of farm-land. While the sides of the measures differ by tens, their surfaces differ by hundreds. There are no such terms as decare, kilare, deciare, and milliare, for they are not squares of any multiple of ten.

MEASURES OF VOLUME.

Cubic Measure.

CUBIC METER....	cu. m.	= 1.	cu. m. = 35.31481 cu. ft.
Cubic decimeter..	cu. decim.	= 0.001	“
Cubic centimeter..	cu. centim.	= 0.000,001	“
Cubic millimeter..	cu. millim.	= 0.000,000,001	“

As before, the tenth of a cubic meter must not be confounded with the cubic decim.; the first is contained ten, the second a thousand times in a cu. m. Decimals must therefore be read by threes; thus, 5.427,93 cu. m. must be read 5 cu. m., 427 cu. decim., 930 cu. centim., etc.

MEASURES FOR FIRE-WOOD.

Dekastere.....	dekast.	= 10.	st.	} = 1.308 cu. yds.
STERE.....	st.	= 1.	“	
			or cu. m.	
Decistere.....	decist.	= 0.1	st.	

Note that the decist. is equal to one-tenth of a st., or cu. m., and is not to be confounded with cu. decim.

MEASURES OF CAPACITY.

Unit, the liter, equivalent to one cubic decimeter.

			Dry Measure.	Wine Measure.
Myrialiter.....	myrial.	=		
Kiloliter.....	kilol.	=		264.17 galls.
Hektoliter.....	hektol.	=	2 bu. 3.35 pk.	
Dekaliter.....	dekal.	=	9.08 quarts.	
LITER.....	l.	=	0.908 “	1.0567 quarts.
Deciliter.....	decil.	=	6.1022 cu. in.	0.845 gills.
Centiliter.....	centil.	=		0.338 fl. oz.
Milliliter.....	millil.	=		0.27 fl. dr.

The myrial. and kilol. are seldom used; but for grains, potatoes, seeds, as well as alcohol, wine, and oil, the hektol. is in general use. The liter is used as we use both gallon and bushel. The kilol. is a cu. m., the hektol. its tenth part, and the liter a thousandth.

MEASURES OF WEIGHT.

Unit, the gram, weight of a cu. centim. of distilled water, at the temperature of melting ice, 4° C., in the latitude of Paris, in vacuo, and altitude reduced to sea-level.

Metric ton.....	met. ton	=	2,204.6 lbs. avoird.
Metric quintal.....	met. quint.	=	
Kilogram.....	kilo.	=	2.2046 “ “
Hektogram.....	hektogr.	=	3.5207 oz. “

Dekagram.....	dekagr.		
GRAM.....	g.	=	15.432 gr. avoird.
Decigram.....	decigr.		
Centigram.....	centigr.		
Milligram.....	milligr.	=	0.0154 “ “

The kilo. is the weight of a cu. decim. of water, or a liter. The met. ton is therefore that of a cu. m. of water.

The application of the metric system to coins has not yet been adopted, to the exclusion of any other, by any nation. The republics and the minor kingdoms have a more or less perfect series.

The division of the circle into 100° never was a success, and for reasons already noted. It has been proposed to substitute 600°, or six sextants of 100° each. But, if any change be advisable 120° seems preferable, being handily small, and divisible by 2, 3, 4, 5, 6, 8, and 10.

The thermometer of Celsius, or the centigrade (100°), has 0° at freezing, 32°, and 100° at boiling water, 212°, of the Fahrenheit. It is translated into Fahrenheit, F., or Réaumur, R., by the formula:

$$C = \frac{5}{9}(F - 32) \text{ or } \frac{5}{4}R.$$

The Wedgwood pyrometer, W., has its 0° at 580.56° C., and each degree of W. = 72.22° C.

The measure of work is the kilogrammeter, or 1 kilo. raised 1 m. high in 1 second, or 7.233 f. lbs., and a horse-power equals 75.73 kilogmet. It has been proposed to substitute tonmeters, when 1 h.p. = 13.47 tonmet. The atmospheric pressure is reckoned at 1.033 kilo. to the sq. centim. The following approximate rules are useful for every-day necessities. As there are 96 eighths to one foot, a drawing to the scale of

$$\frac{1}{8}'' = 1' \text{ is equiv. to 1 centim.} = 1 \text{ m. nearly.}$$

$$\frac{3}{8}'' = 1' \text{ “ “ “ 2.5 decim.} = 1 \text{ m., etc.}$$

Five miles = 8 kilom., and a little more.

The meter is 3 ft. 3 in. $\frac{3}{8}''$, nearly.

The decim. is 4 in., slack.

The centim. is $\frac{3}{8}''$, full.

The sq. meter is 10 $\frac{1}{2}$ sq. ft., and more.

The sq. mile contains nearly 3 sq. kilom., and the sq. kilom. is 247 acres.

The hekt. is nearly 2 $\frac{1}{2}$ acres.

The are is a rood, nearly.

Three cu. yds. contain nearly 4 cu. m.

One cu. m., or st., equals $\frac{7}{8}$ of a ton of coal, of 40 cu. ft., which is also the U. S. shipping ton, or 33 U. S. bushels; and 2 cords of wood contain a little more than 7 steres.

The liter is a quart, both dry and wine measure (nearly 6 of our so-called quart bottles to 4 liters).

Four and a half l. to the gallon, imperial.

A new 5 cent nickel weighs 5 grams.

Fifteen grams of letter-weight are called $\frac{1}{2}$ oz. avoird.

The kilo. is 2 pounds, full.

The met. ton is the old big ton.

One horse-power, 33,000 foot-pounds, is 75 kilogmets.

Mechanical equiv. of heat, 772 f. lbs., is 425 kilogmets.

METROPOLIS, a city in Illinois, on the n. bank of the Ohio river; pop., '70, 2,490. It is 38 m. e. of Cairo, and 11 m. above Paducah. Its streets are regularly laid out, of a uniform width, and it is built on a high bluff, which slopes gradually toward the river; the lowest line being above high-water mark in the greatest floods. It has a bank, 8 churches, and 2 newspapers. The principal manufactories are potteries and tobacco factories. Lumber is manufactured, it has 2 ship-yards and several flour-mills.

METZU, GABRIEL, 1615-67; was b. at Leyden, in s. Holland. Little is known of his early life, and from what artist he acquired his education in the rudiments of painting is unknown. He was, however, still young when already possessed of a high reputation at Amsterdam. As a painter he belonged to the Dutch school, and was essentially a materialist in art. Although he painted a few portraits, most of his subjects were taken from commonplace scenes of middle-class or humble domestic life. Of imagination or high artistic conception he had but a small share; but in minuteness of detail, in perfection of coloring and execution, he was very remarkable. His subjects were such as morning visits, musical parties, ladies at their toilet, a cavalier smoking and drinking at a cabaret; in short, he was a *genre* painter, and in exact reproduction of scenes of familiar life stands very high. His work commands a great price, and many excellent specimens are to be found in the *Louvre* and the other principal art-galleries of Europe. It has been asserted that Metzú died in 1658, but one of his best and undoubtedly genuine works bears date 1667.

MEURSIUS, or DE MEURS, JOHANNES, 1579-1639; b. Belgium; educated at Leyden, where he became famous for his classical attainments. At the age of 12 he wrote orations in Latin, at 13 he composed Greek verses, and at 16 he had finished a commentary on Lycophron, the most difficult Greek author. On leaving the university he became tutor to the sons of John of Barneveldt, the grand pensionary, and traveled with them through Europe. He continued his studies on the continent, and the university of Orleans recognized his great learning by conferring upon him the degree of LL.D. He returned to Holland in 1610, and became professor of history in the academy of Leyden, and the next year was transferred to the chair of Greek. He was made historiographer to the states of Holland, and enjoyed a high degree of favor, till the execution of Barneveldt, his known intimacy with whom exposed him to considerable persecution. He was offered and accepted, in 1625, from the king of Denmark, the professorship of history in the university of Sora, and the position of royal historiographer, and he remained at Sora till his death. His published works are 67 in number; they include editions of many Greek authors, such as Lycophron, Procopius, Porphyry, and Aristoxenes; treatises on Greek and Roman antiquities; and a *Glossarium Græco-Barbarum*, still a standard work on the Greeks of the lower empire.

MEUSE, a river of northern Europe, rising in the department of *Haute Marne* in France, flowing northerly through the departments of Vosges, Meuse, and Ardennes, traversing the mountainous region of the "forest of Ardennes," entering Belgium at Namur, where it is joined by the Sambre from the w.; thence runs n.e. past Liège, where it receives the Ouerthe, forms a part of the boundary between Belgium and Holland, passes Maestricht and Roermond, and receives the Roer. At Bommel it almost joins the Rhine, and finally mingles its waters by two channels with the Waal, one of the mouths of the Rhine, the easterly channel reaching Rotterdam, and afterwards being joined by the other, when both empty into the North sea. Their delta forms extensive shoals and quicksands. The river is 580 m. long, and can be navigated 460 miles. Canals in Holland and Belgium connect it with their other rivers.

MEW, or SEA MEW, the English name for the common European gull (*larus canus*) and other small gulls.

MEXICO (*ante*). Juarez, president of Mexico until 1872, was succeeded by Lerdo de Tejada (q.v.), under whose administration the country remained in a satisfactory condition. This statesman was minister of foreign affairs under Juarez, and his ability as a diplomatist was well recognized. The perpetual tendency to revolt which characterizes the Mexican people, though smothered during the presidency of Lerdo, became active toward the end of 1876; and his re-election for four years precipitated a revolution, headed by Porfirio Diaz, by which the latter gained control of the government, while Lerdo and his cabinet fled. President Diaz remained in possession of the government until 1880, when the regular quadrennial election resulted in the success of the government candidate, gen. M. Gonzalez, who was declared president; he had been secretary of war in 1878. A few revolutionary outbreaks which occurred during president Diaz's administration were promptly suppressed, through the employment of vigorous measures by the government.—A table published in Mexico in 1876 (not entirely trustworthy) gives the pop. of the republic as 8,743,000, and that of the city of Mexico as 250,000. The republic is divided politically into 27 states, one federal district, and one territory. The names of the states are as follows: Aguas Calientes, Campeachy, Chiapas, Chihuahua, Coahuila, Colima, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Mexico, Michoacan, Morelos, Nuevo Leon, Oajaca, Puebla, Querétaro, San Luis Potosi, Sinaloa, Sonora, Tabasco, Tamaulipas, Tlaxclala, Vera Cruz, Yucatan, and Zacatecas. Each of these states is administrated over by a governor, and an assembly called the state congress. The army of the republic comprised, in 1879, 20 battalions of foot, 14,640 men and 765 officers; 10 corps of horse, 4,840 men and 290 officers; 4 brigades, of 4 batteries each, of artillery, 1315 men and 148 officers; coast-guards, 71 men and 22 officers; and invalids, 265 men and 19 officers; total, 22,375. The annual expenses of the Mexican army and navy (the latter comprising only 4 gun-boats) average over \$8,000,000.—The national debt of Mexico was set down in 1878 at \$131,914,665; of which, to Great Britain, \$69,311,657; to Spain, \$9,460,986; to France, \$2,859,917; interest, \$57,392,145; miscellaneous (including American claims awards \$3,375,123), \$6,121,753. The annual revenue is about \$17,000,000; the annual expenditure about \$19,000,000. The total amount of the exports varies between \$25,000,000 and \$35,000,000 annually, that of the imports being about the same, though the prevalence of smuggling renders it impossible to more than approximate to the correct figures. The amount of the trade of Mexico with the United States is only attainable in part from the published reports, as given in the following table.

TRADE BETWEEN MEXICO AND THE UNITED STATES (IN PART) FOR 1878.

	Imports.	Exports.
Vera Cruz.....		\$1,587,916 29
Mazatlan.....	\$1,182,987 00	2,398,493 00
Matamoras.....	865,011 00	476,831 00

At the close of the year 1879 there were 372 m. of railroad in operation in Mexico,

the principal line being that between Vera Cruz and the capital. Education was conducted, in 1876, in the republic by 8,103 primary schools; 54 professional and secondary schools; a national preparatory school in the city of Mexico; and other institutions of learning. There were also 40 public libraries; 3 of which, containing an aggregate of 236,000 volumes, were in the capital. The important staple articles of export are mahogany and dye-woods, cochineal, tobacco, coffee, sugar, and the hennequen plant (*agave Americana*), from which is prepared Sisal hemp. During the year 1875-76 Yuca, tan produced 22,000,000 lbs. of this fiber, representing the product of more than 18,000,000 plants under cultivation. The capital invested in this industry was \$5,147,000. Maize is largely cultivated, and yields three and sometimes four crops annually; but, with wheat and rice, is only grown for home consumption. The value of the exportation of tobacco in 1873 amounted to \$132,984.75.

MEXICO, a village in n.e. Missouri, a junction of the St. Louis, Kansas City and Northern railroad, with the Louisiana and Missouri river railroad, and the South Branch; pop. '80, 3,841. It is the county seat of Audrain co., and is pleasantly located on an affluent of the Salt river. It is 50 m. n. of Jefferson City, and 108 m. w. of St. Louis. It is the seat of Hardin (female) college, has good public schools, an elegant courthouse, a variety of stores, 3 newspapers, and 3 banks. Its industries are the manufacture of woolen goods and plows.

MEXICO, ANCIENT ARCHITECTURE of, structural remains of the Aztec, Toltec, and other races who peopled Mexico prior to and at the time of the Spanish invasion under Cortez. Although these remains have been from time to time explored and investigated, it has been chiefly with the desire to sustain some comprehensive theory of comparative architecture, and from a stand-point of supposed similarity in their case to the remains of ancient Egypt, India, Greece, and, as lord Kingsborough conceived, of Jerusalem. Humboldt's work on New Spain first excited the curiosity of the Europeans, and rescued the antiquities of Mexico from the oblivion to which they had so long been consigned; but it was not until a comparatively recent period that their value as works of art, and as indications of a considerable advance in civilization, was fully appreciated. Pyramids having even a larger base, and being otherwise scarcely inferior in magnitude to those of Egypt, are found in many parts of Mexico; while the general condition of architecture at the period when these were erected has been found to be of a character to surprise and charm even those familiar with the monuments of the east. Mexican architecture is that of two distinct peoples: the Toltecs, who occupied Mexico prior to the 7th c. of our era, and the Aztecs, with whom may be associated the Chichemacae, who inhabited the country at the Spanish conquest early in the 16th century. That which is believed to belong to the earlier race is also the most remarkable; the later would seem to have been derived from it. Architecture in its essential features similar to that of the Toltecs exists in various parts of Central America, and may be associated with it. As far as our present knowledge extends, the architecture of Mexico is to be regarded as, in the main, self-developed, rather than borrowed from that of any other country. The buildings display vast labor, and often great skill, and are works of singular interest, promising to repay a far more thorough investigation than they have ever yet received. As in almost every other national architecture, the most important edifices are those devoted to the purposes of religion. These are known as *teocallis*, and appear, like the Egyptian temples, to have contained apartments for the priests; they also contained sepulchral chambers, and had descending galleries leading down into cavernous recesses or halls, which are variously conjectured to have been used for religious mysteries, or as places for the concealment of treasures, and may probably have been used for both purposes. In plan these buildings are square; in form pyramidal, generally rising in successive stories or stages, like a series of truncated pyramids placed one above another, each successive one being smaller than the one on which it immediately rests, so that it stands upon a platform or terrace; the holy place, or temple proper, being built on the summit, and subordinate in effect to the pyramid. The sides of the pyramids face the cardinal points; their angle of inclination is seldom less than 70°, which differs little from that of the pyramids of Egypt. The largest, most sacred, and best-known of these *teocallis* is that of Cholula, for which a fancied prototype has been found in the temple of Belus, as described by Herodotus. This pyramid-temple of Cholula is now in appearance little more than a vast mound of earth covered with vegetation, and crowned with a small church. But on near inspection its architectural features are sufficiently distinguishable. The base of this huge structure measures 1440 ft. each way (some authorities say 1488 ft.); its height is 177 ft; the sides of the base of the great pyramid of Gizeh are only 763 ft., so that the area of the Mexican pyramid is nearly four times that of the greatest of those of Egypt, but it is not a third of their height. The body of the pyramid of Cholula is formed of clay and sun-dried bricks. It consists of four terraces; and on the summit is a small church dedicated to the Virgin, which occupies a temple of the Toltec god of the air. From the perishable material of which it was constructed, the decorative features have almost entirely disappeared, though there are evidences remaining of what were once elaborate and interesting sculptures. In its present condition but a very imperfect notion can be formed of its original appearance. It contains spacious sepulchral cavities; and a square chamber formed of

stone and supported by beams of cypress wood was some years ago discovered in it, within which were two skeletons and several painted vases. The buildings outside the limits of the valley of Mexico, and especially those in Central America, are in far better preservation. One of the most stupendous monuments of this style of architecture occurs at Palenque, in the state of Chiapas, Mexico. The great *teocalli* at Palenque (built, according to the startling assumption of lord Kingsborough, after the model of the temple of Solomon) comprised within its extensive precincts various sanctuaries and sepulchers, courts and cloisters, subterraneous galleries, and cells for the habitation of the priests. The whole rests on a platform composed of three graduated terraces, and forms a spacious quadrangle inclosed by porticoes. On each side of the exterior is an ascent or flight of stairs, and on the east a second flight leading down, after the first is ascended, into the cloistered court. Beneath the cloisters are what are conjectured to have been initiatory galleries; and in the center of the quadrangle is what appears to be the ruins of an altar or "high place." The temple itself is oblong in plan, 76 ft. wide by 26 ft. deep, and is decorated with sculpture and hieroglyphics executed in stucco. The roof is formed by graduated courses of stone, which meet at the summit, and has six ornamental projections, placed above the openings formed by the supporting piers, which were probably intended to support small idols or ornamental figures. The city of Palenque itself exhibits a variety of buildings, temples, palaces, baths, and private houses, all manifesting excellence of workmanship combined with considerable skill in design. The palaces, or houses of the kings, appear to have resembled the temples in being based on pyramidal substructures; but these are generally oblong instead of square in plan, and much lower than the temple pyramids. Their substructure is usually of stone, and very massive, elaborately sculptured with figures of idols and masks of monstrous proportions, scrolls, mat-work, etc., often executed with great skill. The upper part appears to have been of wood, but has mostly perished. The ruins of Palenque extend for more than 20 m. along the summit of the ridge which separates the country of the wild Maya Indians from the state of Chiapas, and must anciently have embraced a city and its suburbs. The principal buildings are erected on the most prominent heights, and several of them, if not all, have been provided with stone stairs. The principal edifice, which has been sometimes styled a palace, is built in several squares; but the main halls or galleries run in a direction from the n.e. to the s.w.; and this position has been observed in all the edifices examined, be their situation what it may. The houses have all been substantially built of stone cemented with mortar; but symmetry has been but little studied in their construction, it is supposed less from ignorance than design. Other ruins of considerable magnitude, and distinguished by numerous sculptures, are found upon the neighboring hills. In the vicinity there is one building in particular, apparently a religious edifice, which deserves notice. Two galleries constitute its foundation; the front one occupying its whole length, while the back one is divided into three compartments. Of these the eastern has the appearance of a dungeon; the western is a small room with a chapel ornamented with elegant reliefs. These consist of representations of the human figure, in various attitudes, and adorned generally with boughs and feathers. There are other very interesting ruins in this part of Mexico, but they have not as yet been sufficiently examined for description. One of the most characteristic of the palaces is that of Mitla, the remains of which show that it must have been an edifice of great extent and grandeur. It appears to have originally comprised five distinct portions, which have been regarded as places of retirement for the kings, or as tombs. Three of these still remain. The principal one is nearly 130 ft. long. A staircase leads to a subterranean apartment 88 ft. by 26, the walls of which, like the exterior, appear to have been sculptured or tooled in imitation of mat or basket-work—a species of decoration characteristic of Toltec taste, and often found in sepulchral chambers. This same building has also a spacious hall supported by six plain cylindrical columns of porphyry, without base or capital, and in some respects differing from any found elsewhere. The ceiling which they support is formed of beams and slabs of cypress or *savin* wood of large size. Over the principal entrance is a stone lintel 12 ft. long and 3 ft. deep. There is no appearance of windows. The interiors of the chambers have been elaborately painted with representations of sacrifices, trophies, weapons, etc.; and with ornaments resembling those found in Etruscan decorations. At Testihuacan, about 25 m. to the n.e. of the city of Mexico, are several hundred small pyramids ranged in files or lines, and two larger ones, which are believed to have been consecrated to the sun and moon. Each of the latter is divided into four platforms, the slopes between which consisted of steps, and on the summit was a colossal stone statue covered with plates of gold, which were stripped off by the soldiers of Cortes, while the statues were destroyed. Besides monuments which are chiefly works of magnificence, others exist which attest the high degree of civilization attained by the Toltecs, such as roads and bridges. The former of these were constructed of huge blocks of stone, and frequently carried on a continued level, so as to be viaducts across valleys. There are also rock-hewn halls and caverns which curiously resemble the Pelagic remains. Doorways to subterraneous galleries and apartments are found similar to the gate of Mycenæ; and another similarity exists in the peculiar triangular arch formed by courses of stone projecting over each other, of which specimens are found in the cloisters of the building at Palenque. There are also extensive works for defensive purposes, earthen sepulchral mounds, etc. The

mountain of Tezcoca is nearly covered with ruins of ancient buildings. There is also evident a remarkable skill and high degree of taste in sculpture. Many of the statues found at Otumba, Mitla, Joehichalo, and the magnificent flower-temple of Oajaca, are sculptured in a purely classical style; while vases rivaling those of Egypt and Etruria have been discovered in sepulchral excavations. The successors of the Toltecs, the Chichemacas, the Acolhuas, and other nations of Mexico, built houses and formed cities, seeming to be well skilled in architecture. The Mexicans (Aztecs) constructed their houses and public edifices with roofs of cedar, fir, cypress, or of a native wood called ojametl: the columns, of common stone, except in the palaces, were either cylindrical or square, and without base or capital. In the palaces these columns were of marble, and even alabaster. The pavements were of a common red stone, sometimes tessellated with marble and other ornamental substances. Cortes, in a letter to Charles V., said of Montezuma: "He had, besides those in the city of Mexico, other such admirable houses for his habitation, that I do not believe I shall ever be able to express their excellence and grandeur; therefore I shall only say that there are no equals to them in Spain." The Mexicans also constructed, for the convenience of their inhabited places, several excellent aqueducts. Those of the capital, for conducting the water from Chapultepec, 2 m. distant, "were two in number, made of stone and cement 5 ft. high, and 2 paces broad, upon a road raised for that purpose upon the lake, by which the water was brought to the entrance of the city, and from thence it branched out through smaller channels to supply several fountains, and particularly those of the royal palaces." The great temple in the city of Mexico, the sanctuary of *Mexitli*, whence "Mexico," was built by the emperor Ahuitzotl. It occupied the center of the city, and Cortes stated that on the space which it occupied a town of 500 houses could have been erected. It was inclosed by a square wall, 8 ft. high and very thick, crowned with battlements; built of stone and lime, and ornamented with many stone figures in the form of serpents. It had four gates to the four cardinal points, and over each gate was an arsenal filled with offensive and defensive weapons, from which the soldiers were supplied when it was necessary. In the center of the inclosure was an immense flat, solid building, built in five gradually narrowing platforms or terraces, with stairs to each terrace at the s.w. corner, so arranged that each terrace had to be traversed around the entire building before the next staircase could be reached. At the top of the structure, at one end, were two tall towers, sanctuaries; here also was an altar for sacrifice, and two stoves of stone, in which a fire was kept burning night and day. In the space between the wall and the great temple were 40 lesser temples; a place for the native religious dances; colleges for the priests and seminaries for children; and many other buildings, including a great house of entertainment for strangers of distinction who visited the place from curiosity, or to join in the religious rites performed there. Out of the city of Mexico the most celebrated temples were those of Tezcuco, Cholula, and Teotihuacan. Cortes said that from the top of one temple in Cholula he had counted more than 400 towers of others. Torquemada estimates that there were upwards of 40,000 throughout the empire, and there were certainly hundreds in each principal city. The peculiar coincidences of form, position, and ornamentation to be found between these structures and those employed for similar uses among the ancient Egyptians, have given rise to a belief in some relation between them, which is not unfounded; but no certain theory as to this relation has ever yet been formulated. For many years the ruins and monuments of ancient Mexico had been suffered to lie uninvestigated, and their secrets remain unrevealed—further than had occurred in the works to which reference has been already made, and others like them, of a comparatively remote date. In the spring of 1880 an expedition under the direction of M. Désiré Charnay undertook a careful exploration of the territory in question, and the result of this examination was communicated to the world by M. Charnay through the pages of the *North American Review*, from which we gather the following information. The first visit of the exploring party was made to the ruins of Teotihuacan, a city which is said by M. Charnay to have been about 23 m. in circumference. "At first view," he writes, "one can form no just idea of the grandeur of these ruins. As with ruins in general, especially when they are overturned and wrecked like those before us, one experiences a grievous disillusion when he looks at them for the first time. It is only after you have made a thorough study of them in mass and in detail that they impress you with their amazing vastness. Nowhere else in America can you, in my opinion, find a more imposing mass of ancient ruins, nor do I know of anything that can compare with this city of the gods." Here is the pyramid of the sun, whose base is 761 ft. square, and its height 216 ft.; its four sides facing the four cardinal points. It is constructed of volcanic *débris* laid in vegetable mold. There is no sign of mortar, but the structure was coated with cement, of which large slabs remain in perfect condition. Torquemada said of this city: "All these temples and palaces, and all these houses round about, were wholly built of white polished lime, so that on beholding them from afar one experienced no end of pleasure at the sight. The alleys, the streets, and the plazas were of colored and polished cement, and so fair were they, so cleanly and so shining, that it seemed impossible that human hands should have been able to construct them, or that human feet durst tread them. And so true is this that, all exaggeration aside, my report can be believed, for in addition to what others have certified to me I have myself seen certain ruins that gave proof of all I have said; and amid

these temples were trees and flowers, magnificent gardens, and parterres breathing fragrance, all for the service and the ornamentation of the temples." It is stated that there were 27,000 buildings in Teotihuacan, not counting the temples. Charnay says that the term *Toltec* meant "builder," or "architect," and that it was applied to those who reared cities and built edifices, and not to any particular race or nation. In upper Mexico the material used in building was adobe; in some provinces a mixture of stones and mud; at Hochicalco and at Teotihuacan a mixture of volcanic stones and mud, covered with a layer of cement; at Mexico it was adobe covered with cement or lime, and polished; at Oaxaca it was stones and mortar overlaid with cement, and this cement modeled into bas-reliefs; at Palenque, too, there are sculptured stones bearing inscriptions; in Yucatan there are pyramids and monuments of stone and mortar; the builders used the material nearest to them, but the general style of the architecture and the methods of building are in all instances nearly identical. Tula, which was another site visited by Charnay, the ancient metropolis of the Toltecs, 65 m. n. of the city of Mexico, was founded in 667. Here he excavated Toltec dwellings, found specimens of their sun-burned bricks, and numerous vases and other articles of pottery. He also claimed to have discovered fragments, or a fragment of a glass vessel, now iridescent from long burial under ground. A palace was also unearthed having 43 apartments. Under the reign of Mitl, in 927, the race and empire of the Toltecs reached the climax of their fortunes. The population had increased to such an extent that the nation occupied a territory more than 3,000 m. in circumference. The population of Teotihuacan is believed to have been half a million. M. Charnay's exploration is conducted with all the zeal and enthusiasm which characterized that of Dr. Schliemann in ancient Ilium, and promises to reveal much that has been unsuspected with regard to the ancient civilization of Mexico, as this was displayed in the condition of the arts, and particularly of architecture, among its people. In the mean time it has not advanced sufficiently far at the present writing to have demonstrated either the justness or the inaccuracy of past theorists on the probable origin to which these may be attributed. See CHOLULA and PALENQUE, *ante*.

MEXICO, PICTURE WRITING OF. See HIEROGLYPHICS, *ante*.

MEYENDORFF, the name of a Russian family which originally lived in Saxony. PETER, 1796-1863, was ambassador to Austria in 1850, and signed the convention of Olmütz. GEORG, d. 1863, wrote *Voyage d'Orembourg à Boukhara*. FELIX, d. 1871, was a son-in-law of prince Michael Gortchakoff, *chargé d'affaires* at Rome, and afterwards at Carlsruhe.

MEYER, FELIX, 1653-1713; b. Switzerland; studied art at Nuremberg, and afterwards under Ermels, a landscape painter. He then went to Italy to continue his studies, but the climate proving injurious to his health, he returned to Switzerland. He studied, and represented henceforth in his pictures, the scenery of his country. He was not successful as a figure painter; but as a landscape painter he united a quick imagination with great technical skill and swiftness of execution. In illustration of the latter quality, the story is told that he was one day asked by the abbot of St. Florian, in Upper Austria, the proper design for painting in fresco two great rooms in the abbey, which the artist engaged seemed unable to decorate in a suitable manner. Meyer at once sketched with a piece of charcoal the objects of natural scenery about the abbey which seemed to him worthy to be included in the frescos; and the abbot, impressed with his facility and fertile invention, employed him to carry out in fresco the charcoal sketches. Thenceforward his work received the patronage of the nobility. In the last years of his life he assumed a new manner in his pictures, and his productions in this later manner are by no means equal to his earlier work.

MEYER, HEINRICH AUGUST WILHELM, TH.D., 1800-73; b. Gotha. In 1831 he appeared as an exegetical commentator on the New Testament, displaying sound learning and acute criticism, combined with evangelical sentiments. His commentaries are highly esteemed. Besides his commentaries, he edited an important work on the evangelical confession, and preached for many years in the church at Hanover. An English translation of his commentaries is now publishing at Edinburgh, under the direction of Drs. W. P. Dickson, of the university of Glasgow, and F. Crombie, of St. Mary's college. Those on Galatians, Romans, and the Gospel of John have already appeared. Their value is very great.

MEYER, JEAN GEORGE (MEYER VON BREMEN), b. in Bremen, 1813; student 1833-42 in the art school of Düsseldorf, where he opened a studio. His first productions were religious works of large size, but the spirit of Meissonier soon possessed him, and he commenced that series of domestic subjects on diminutive canvas of which the exquisite finish and natural pathos have made his name a household word on two continents. In 1852 he established himself in Berlin, and so great has been the demand for his pictures that they have generally been sold into private hands before they could be placed in the great exhibitions. Their usual small size, and lively tone as well as delicacy of finish, make them peculiarly valuable as parlor pictures. Among his well-known paintings are "The Widow's Evening Prayer with Her Children," which has been engraved; "Inundated;" "The Return of the Soldier of the Landwehr," also engraved; "The Very Small Brother," engraved; "The First Prayer," engraved; "The

Repentant Daughter;" "Grandfather's Visit;" "Fisherman's Children." The first named and "The Very Small Brother" were exhibited at the Paris exposition of 1855. A considerable number of his paintings are now in the United States.

MEYER, JOHANN HEINRICH, 1759-1832; b. Switzerland; studied painting at Zürich, under Füssly, brother of the well-known royal academician, Henry Fuseli. In 1784 he went to Rome, where he met Goethe, with whom he contracted a friendship so intimate that he was known in Germany by the name of "Goethe-Meyer." After spending some time in Venice, Naples, and other Italian cities, he returned to Zürich in 1787. He made at Naples the acquaintance of Tischbein, and of Herder, who was making a tour of Italy as an *attaché* in the service of the duchess of Weimar. In 1792 he visited Goethe at Weimar, and was appointed to a professorship in the Weimar school of design. Three years later he revisited Italy, again passing much of his time at Naples and Florence. In 1797 he returned to Weimar, which became henceforth his home. He was on intimate terms with the court and the literary men and scholars at Weimar. He was honored with the title of *Hofrath*, and in 1807 was made a director of the academy there. He continued his intimacy with Goethe, who consulted him on all matters of art; and many of the critical portions of Goethe's works on art, such as *Kunst und Alterthum*, and *Winckelmann und sein Jahrhundert* are to be credited to Meyer. As a painter, his production was scanty. There is an allegorical frieze by him in the palace at Weimar, and he left a few water-colors, for the most part sketches from ancient works of art. It was as a writer on the history and theory of art, and particularly of Greek and Roman art, that he acquired authority. He published, with extensive annotations of his own, the works of Winckelmann. These notes he subsequently expanded into a general history of Greek art, which appeared at Dresden in 1820, under the name of *Geschichte der Bildenden Künste bei den Griechen*. A third volume of this work was published by Reimer, after Meyer's death, as *Geschichte der Bildenden Künste bei den Griechen und Römern*.

MEYERS, a co. in s. central Dakota; drained by the s. fork of White river and by the Keyapaha which separates it on the s. from Nebraska; 1400 sq. m.; pop. '80, 115-29 of foreign birth. The soil is undulating and broken. As the country is very sparsely settled, there is little agriculture and no manufacturing.

MEYR, MELCHIOR, 1810-71; b. Germany; educated at Munich and Heidelberg. He made his first appearance as a poet, at the age of 25, and as a prose writer three years later. His most important works are *Stories from the Ries*, 1856-60; *God and his Kingdom*, 1860, with its sequel, *Emilia*, 1863; *Charles the Bold*, 1862; and *Talks with an Oaf* (*Grobrian*), 1866.

MEYRICK, FREDERICK, b. England, 1826; educated at Trinity college, Oxford, of which he was successively scholar, fellow and tutor; graduated in 1847, and has held the university offices of select preacher and public examiner. In 1856 he was appointed one of the queen's Whitehall preachers, in 1859 inspector of schools, and in 1869 became rector of Blickling with Erpingham in Norfolk. He was the chief agent in establishing the Anglo-Continental society for making known the principles of the English church in foreign countries, and published several controversial treatises in Latin, Spanish, Italian, etc. He is the author of *Practical Working of the Church in Spain*; *The Moral Theology of the Church of Rome*; *The Outcast and Poor of London*; *The Wisdom of Piety*; *But isn't Kingsley Right after All?*; *On Dr. Newman's Rejection of Liguori's Doctrine of Equivocation*. He has contributed also to Dr. Smith's *Dictionary of the Bible*, and to the *Speaker's Commentary* edited by Canon Cook.

MEYRICK, SIR SAMUEL RUSH, LL.D., 1783-1848, b. England; educated at Oxford. He married at the age of 20, against the wishes of his father, who disinherited him. In 1810 he published *The History and Antiquities of the County of Cardigan*. He was now called to the bar, and practiced law in the ecclesiastical and admiralty courts. In 1814, in association with capt. Charles Hamilton Smith, he published a book on the *Costume of the Original Inhabitants of the British Islands*. But his chief antiquarian work did not appear till 1824, under the title of *A Critical Enquiry into American Armor*, in 3 vols. 4to. He assisted rev. T. D. Fosbroke, in 1825, in the publication of *The Encyclopædia of Antiquities*. In the next year, he arranged the arms and armor in the Tower of London, and two years later, he performed the same service at Windsor castle, at the request of George IV. He was knighted by William IV., in 1832. He had already built near Goodrich castle on the Wye, a house called Goodrich court, arranged to exhibit his collection of armor, an account of which is to be found in Joseph Skelton's *Engraved Illustrations of Ancient Armor*. In 1836 sir Samuel furnished the text to Henry Shaw's *Specimens of Ancient Furniture*. His last important publication was *Lewis Dunne's Heraldic Visitation of Wales*, which appeared in 1846.

MEZERAY, FRANCOIS EUDES DE, 1610-83; b. in Séez, France; educated in the university of Caen; was for a time in the commissary department of the army. Its labors proving distasteful, he commenced writing in light literature, and perceiving that historical literature was not of a high order at that time, conceived the notion of supplying the want. His labors attracted the attention of Richelieu. The first vol. of his *History of France* appeared in 1643 in quarto, illustrated. Industrious, independent, and super-

cilious towards his predecessors, he produced a work that placed him temporarily at the height of fame. Richelieu sustained him. In 1651 he had published the 3d vol., and been made a member of the academy. His style is vigorous and original, and though far less thorough than modern historians, "his sagacity often supplies his lack of knowledge." After the *History of France* was completed, he made a translation of "*The History of the Turks*" by Chalcondyle. During the wars of the Fronde he mingled in the wordy war of pamphlets, poems, madrigals, and satires, with a profuse pen, distinguished more by its grossness than its wit; and largely aimed at cardinal Mazarin and his *belles niées*. For the history of France in the 16th c., which was near to him, he is still the highest historical authority of his time.

MEZEREON, the bark of *daphne mezereum*, Lin.; *daphne gnidium*, Lin.; and *daphne laureola*, Lin. Natural order *thymelacææ*. These three plants are small shrubs from 2 to 4 ft. high. *Daphne mezereum* has rose-red, sessile, fragrant flowers, in small clusters, preceding the deciduous leaves. It is indigenous to hilly and mountainous regions of Europe, extending to the Arctic circle and eastward to Siberia. The other two species grow in southern Europe, *D. laureola*, spurge laurel, has large evergreen leaves and yellowish-green flowers in axillary clusters. *D. gnidium*, spurge flax, has narrow, annual leaves, and small white flowers in terminal racemes. Mezereon bark occurs in commerce in long bands about one-half an in. wide and one-twentieth an in. thick, folded and tied together in bundles, or rolled up into flat disks. The dried bark is inodorous, but has a persistently acrid and burning taste. The bark of *D. gnidium* is darker, and that of *D. laureola* is more gray and has a greenish bast. They resemble mezereon in acidity. The root bark of the three species is the strongest, but the stem bark is the more common. It is used as an adjunct to sarsaparilla in making the compound decoction and the compound extract of that drug. Ancient and modern authorities assign to mezereon irritant qualities, and it was long ago used as an emetic, purgative, cholagogue, emmenagogue, and sudorific. It has produced narcotism and convulsions, acrid and blood-red urine, and death has sometimes followed its experimental use on animals. In medicinal doses the decoction causes salivation and increased cutaneous and mucous secretions, described as having a peculiar odor. A case is recorded of a girl upon whose cheek the fresh juice had been rubbed. This was followed by a vesicular eruption, fever, internal disorders, and after a period of nine months, death. Notwithstanding this, it is still used as a local irritant in the form of the juice, and that of an ointment. It once had a reputation for curing skin diseases.

MÉZIERÈS, ALFRED, b. at Rehon on the Moselle in 1826; educated in Paris; professor of foreign literature at Nancy in 1854, and afterwards assistant professor of the same in Paris. Among his published works are *Memoire sur le Pelion et l'Ossa*, 1853; *Shakespeare, ses Œuvres et ses Critiques*, 1861; *Prédécesseurs et Contemporains de Shakespeare*, 1863. The last two works were crowned by the French academy. *Contemporains et Successeurs de Shakespeare*, 1864; *Dante et l'Italie Nouvelle*, 1865; *Charades et les Homonymes ou l'Art de s'Instruire en s'Amusant*, 1866; *Petrarch*, 1867; and *Recits de l'Invasion, Alsace et Lorraine*, 1871.

MEZZO signifies middle, or mean, and is generally used in music in conjunction with some other word, as mezzo-forte—moderately loud; mezzo-piano—rather soft; mezza-voce—with a moderate strength of tone; mezza-orchestra, with half the orchestra, etc. When written alone and applied to the grand piano-forte it denotes that the pedal is to be used, avoiding one of the sets of strings.

MEZZOTINTO, a style of engraving on copper and steel which was very popular during the first half of the 19th c. in England and America, being applied to reproduction of works of the masters; and also to the illustration of subjects for the class of gift-books known as "annuals," and which were greatly in vogue between 1820 and 1860. In this style of engraving, which essentially differs from every other, the surface of the plate is first indented or hacked all over by the action of an instrument something like a chisel, with a toothed or serrated edge, called a cradle, or mezzotinto grounder. This tool, being rocked to and fro in many directions, indents or barbs the plate uniformly over its face, and produces what is called the mezzotinto grain or ground. The barb or nap thus produced retains the printing-ink; and if in this state of preparation an impression were taken from the plate upon paper, it would be uniformly of a deep black color. The directions, or *ways*, as they are technically called, given to the grounding-tool are determined by a regulated plan, and for this purpose an ingenious sort of scale is used which enables the workman to pass over the plate in almost any number of directions without repeating any one of them. The mezzotinto ground being thus laid, it is at this period that the business of the artist properly commences. Having traced or drawn, with a pencil or other instrument, his outline upon the paper (unless, as is sometimes the case, this should have been etched by the ordinary process previous to the mezzotint ground having been laid), he proceeds to remove the nap or ground, in conformity with the design, from all those parts which are not intended to be perfectly black in the impression. The instruments required for this purpose are scrapers and burnishers; with the former he scrapes away more and more of the ground in proportion to the brightness of the light, and the burnishers are used to produce perfect whiteness where it is required, as the high lights on the forehead or tip of the nose, or white linen

in a portrait, etc. As the work proceeds it may be blackened with ink, applied with a printer's ball or otherwise, to ascertain the effect; after which the scraping may again be proceeded with, the artist taking care always to commence where the strongest lights are intended to appear. The great facility with which mezzotinto engraving can be executed, as compared with line-engraving, was the principal cause of its popularity in the days of the height of its success. But it also possesses peculiar advantages of richness of color, capacity for broad contrast of light and shade, and mellowness of tone, which adapt it for certain classes of work, and, in its proper place, enable it to produce effects not otherwise attainable. The richness and depth of the shadows in this kind of engraving are measurably balanced, however, in the corresponding poverty of the lights. Where these occur in masses in mezzotinto-engraving the effect is cold and unsatisfactory. At first copper was used in the production of mezzotinto-engraving, but steel plates eventually superseded them, on account of the greater scope which its hardness afforded to the tools employed, and also the very much larger capacity for impressions of steel plates. The legend which associates the name of prince Rupert with the discovery of the art of mezzotinto-engraving is an interesting one; and, as the Italians say, *si non e vero, e ben trovato*. It is said that the prince observed one morning a soldier engaged in cleaning his musket, removing from it the rust which the night-dew had occasioned; and perceiving upon it, as he thought, some resemblance to a figure, it occurred to him whether or not, by corroding or grounding a plate all over in a manner resembling the rust, he might not afterwards scrape away a design upon it, from which impressions might be obtained. It is alleged that he succeeded, and thereby accomplished the invention. Unfortunately for the claim set forth in behalf of prince Rupert, it has been proven groundless, and the prince is accused of having learned the art from its original inventor or discoverer. This was Louis von Siegen, a lieutenant-col. in the service of the landgrave of Hesse-Cassel, and his first work which was published was a portrait of the princess Amelia-Elizabeth of Hesse, proofs of which before letter bear the date 1642, or fifteen years anterior to the earliest of prince Rupert's dates. This method of illustration was not only adopted by sir Joshua Reynolds, but even employed in so important a work as Turner's *Liber Studiorum*. In the United States the mezzotinto style was a favorite with magazine publishers in the early days of that kind of literature, being introduced from England by John Sartain, an expert mezzotint engraver, in 1830. He published *Sartain's Magazine*, illustrated after this fashion. See ENGRAVING.

MIALL, EDWARD, b. England, 1829; educated at the Protestant dissenters' college in Wymondley, Herfordshire, where he studied for the ministry. He was for three years a minister of the Independent church at Ware, and was afterwards settled in the same capacity at Leicester. In 1841 he left Leicester for London, where he established the *Nonconformist*, which he still owns and edits, and which remains the chief organ of the English dissenters. He contested, unsuccessfully, a seat in parliament in 1845 and 1847; but was returned from Rochdale in 1852. He was defeated in 1857, but sat for Bradford from 1869 to 1874. He is a leader of the movement for the disestablishment of the English church, and a supporter of universal suffrage. The adherents of the views which he represents gave him, in 1873, a purse of £10,000 in recognition of his services as editor and member of parliament in behalf of complete civil and religious equality. He has written a number of works in support of his ideas—*Views of the Voluntary Principle*, published in 1845; *Ethics of Nonconformity*, 1848; *The British Churches in Relation to the British People*, 1849; *Title-Deeds of the Church of England to her Parochial Endowments*, 1861. Of a less polemical character is his *An Editor off the Line; or Wayside Musings and Reminiscences*, 1865.

MIAMI, a co. in n. Indiana, crossed centrally by the Wabash and Erie canal, the Evansville and Terre Haute railroad, the Eel River railroad, and the Indianapolis, Peru and Chicago, and Pittsburg, Cincinnati and St. Louis railroads; 380 sq.m.; pop. '80, 24,083—22,843 of American birth, 240 colored. It is drained by the Wabash, Eel, and Mississinewa rivers, and Pipe creek. Its surface is generally level, the banks of the rivers rising much higher than the interior plains; a large proportion being covered with hard wood forests, oak openings, and groves of sugar-maple trees. Its soil is fertile, especially the bottom lands, producing tobacco, wool, Irish and sweet potatoes, wine, dairy products, hops, flax, maple sugar, sorghum, honey, and grain. Stock raising is extensively carried on, and there is much valuable water power. Its manufactories include a brewery, woolen factories, cabinet-making establishments, and manufactories of carriages, lumber, furniture, cigars, agricultural implements, etc. Seat of justice, Peru.

MIAMI, a co. in e. Kansas, having the state line of Mississippi for its e. boundary; intersected centrally by the Kansas City, Fort Scott and Gulf railroad, and the Osage branch of the Missouri, Kansas and Texas, forming a junction at Paola; 600 sq.m.; pop. '80, 17,818—16,677 of American birth, 902 colored. Its surface is undulating and spreads out into broad prairies with a small proportion of woodland. It is drained by the Osage river, or Marais des Cygnes, and Peoria, Wea, and Pottawatomie creeks. Live stock is raised, and the fertile soil produces Indian corn, oats, wheat, potatoes, wool, and the products of the dairy. Limestone is the foundation of the soil, and it contains beds of

bituminous coal; petroleum is also found. Among its manufactories are carriage shops, and it has saw-mills, and wind-mills for grain. Seat of justice, Paola.

MIAMI, a co. in s.w. Ohio, intersected by the Great Miami river, and drained by Greenville and Stillwater creeks; 400 sq.m.; pop. '80, 36,178—34,039 of American birth, 1,176 colored. It is traversed by the Dayton and Michigan railroad, and the Columbus, Chicago and Indiana Central railroad, crossing it centrally, and forming a junction at Piqua, and the Miami and Erie canal, following the general course of the Dayton and Michigan railroad, and the Great Miami river. Its surface is undulating and well wooded, particularly in the e. portion. It has limestone quarries in the w., and the soil having generally an under-stratum of Silurian limestone, is very fertile, and produces large quantities of fruit, grain, tobacco, wool, Irish and sweet potatoes, dairy products, flax, maple sugar, sorghum, and honey. Live stock is an important commodity. The extensive hydraulic power of the river is utilized, and its trade in grain is considerable. Among its manufactories are tanneries, distilleries, breweries, spring-wagon and wheel works, machine shops, and oil mills; other manufactures are carriages, furniture, wool, clothing, brick, and metallic wares. Seat of justice, Troy.

MIAMIS, a tribe of Indians of the great Algonquin family, and whose habitat was in the neighborhood of Green bay (Wisconsin) as early as 1658, when they were found there by the French. They were also discovered in 1670 about the Fox river, to the number of 8,000, and disclosing social and tribal conditions of a more elevated character than those usual among the tribes so far north. They occupied a village of houses made of matting, and surrounded by a palisade; and their chief displayed several of the adjuncts of rank and authority. Later, this tribe was collected on the St. Joseph's river, and in 1683 they were at war with the Sioux and the Iroquois at the same time, being aided by the Illinois, who were friendly to them, in their struggle with the latter. They afterwards became inimical to the French, and made overtures to the English, being by this time engaged in a war with the Hurons, and threatening the Chippewas. The Miamis were in fact a warlike tribe, and not a little aggressive. In 1705 the French brought about a war between them and the Ottawas. Finally, when the French and English war broke out, they were in doubt to which side to ally themselves, but generally supported the English and made depredations on the French. Yet when the French were driven out of that part of the country the Miamis united with Pontiac in the capture of the British forts, St. Joseph's and Miami; and when the American revolution began they opposed the patriots and sided with the English. After the close of the revolutionary war they continued to oppose the settlement of the country by the whites, and in 1790 it was found necessary to send a force against them under gen. Harmer. A series of battles, in which success veered from one side to the other, failed to effect a reconciliation, and hostility continued until 1795, when peace was made. In 1790 they had been able to put in the field only about 1500 warriors, and after the peace they rapidly dwindled in numbers and importance. They now ceded lands between the Wabash river and the Ohio state line, but the new mode of living imposed upon them by the nature of the annuity system completed their degradation. Their naturally warlike and energetic character succumbed to the inroads effected by an idle life and facility for obtaining intoxicating liquors; and though they broke into action and attacked the whites on one or two occasions, their ancient spirit had deserted them, and these conflicts availed them nothing. In 1822 their entire number amounted only to between two and three thousand, living on three different reservations. They gradually ceded all their lands to the U. S. government, and in 1846 they were removed to the neighborhood of the fort Leavenworth agency. They then numbered only 250 souls, and were dissipated and wretched in the extreme. About the year 1873 the remains of this once powerful tribe, 150 in number, were finally placed on the Quapaw reservation.

MIANTONOMOH, the name of a sachem of the Narragansett tribe of Indians, who succeeded his uncle, Canonicus, in 1636. He was on friendly terms with the early settlers of Massachusetts, and assisted them during the Pequot war. In 1642 he conducted an expedition against Uncas, the Mohegan chief, but was unsuccessful, and was captured at Norwich, Conn. Uncas surrendered him into the hands of the commissioners of the united colonies, and his execution being advised by them, he was tomahawked on the spot where he was captured, known as Sachem's plain, and where a monument in commemoration of the event was set up in 1841.

MIAULIS, ANDREAS VOKOS, 1770—1835, b. Greece; adhered to the Greek revolutionists in 1821, and the next year, was put in command of the Greek fleet. In March of that year, he defeated a Turkish squadron at Patras, and in September, another squadron near Spezzia. In 1825 he burned the fleet commanded by Ibrahim Pasha near Modon. He left the service in 1827, upon the appointment of lord Cochrane, as his superior in command. He was soon restored to his old rank, and stationed at the harbor of Poros. He participated in the insurrection of 1831, and burned the fleet under his command at Poros, to keep it out of the hands of the Russians. He was indicted for treason, but the proceedings came to nothing. In 1832 the naval stations in the Archipelago were placed in his charge. Soon after, he was made vice-admiral.

MICAH, PROPHECY OF (**MICAH**, *ante*), after the heading contained in the first verse, is divided into three sections, each beginning with "Hear ye," I.—Chapters i. ii, addressed to all the people, describe the coming of the Lord in judgment on the transgressions of Israel and Judah, the doom of Samaria; and the march of the invaders of the land from Samaria south to Jerusalem; denounce luxury and covetousness as the sources of transgression, and condemn the false prophets for leading the people astray; foretell the banishment of the people into captivity and promise their return under the guidance of the Lord their king. II.—iii.-v., addressed to the heads and princes of the people, condemn their oppressive rapacity, and declare that as they had been deaf to the cry of the poor in their wrongs, they too shall call on the Lord but will not be heard. The false prophets also who had deceived others should themselves be made ashamed. As the judges, priests, and people had become mercenary in all their service all of them should be left destitute, Zion should be a ploughed field, Jerusalem heaps of ruins, and the temple height a forest. This second threatening of judgment is followed by a second and fuller promise of Messianic times when the mountain of the Lord's house should be exalted on the top of the mountains, all nations flow to it, and the peaceful reign of the Messiah be extended over all the earth. His birth in Bethlehem Ephrath is foretold, yet his being from everlasting also is affirmed; his government, it is declared shall be marked by divine strength and majesty, and his greatness be extended over all the earth. III.—vi., vii. The Lord, calling on the people the third time to hear, and on the mountains to be witnesses of the controversy, appeals to all his past government over Israel as approving his righteousness. The people, answering, complain that the burden of the sacrifices required is too great to be borne; and the Lord in reply says that he asks of them only to do justly, love mercy, and walk humbly with God. That they had failed to comply with these demands is shown by the treasures of wickedness found in their houses, by the scant measures used, the false balances, the deceitful weights. For these crimes punishments will be inflicted; the wheat, the oil, and wine shall be cut off. The prophet mourns the justice of the sentence, and acknowledges the guilt of all classes of the people who do evil with both hands earnestly, the best of them being sharp as briars and thorns. Yet he waits for the salvation of the Lord, triumphing in his pardoning mercy which will certainly be manifested and in his faithfulness which will perform all that he had promised with an oath to Abraham in the days of old.

MICALI, GIUSEPPE, 1776-1844, b. Italy; after prolonged travels, devoted himself to the study of archaeology. His most important work is his *Italia avanti il Dominio de' Romani*. It was published under that title in 1810, and a revised edition, with extensive changes, appeared in 1832, as *Storia degli Antichi Popoli Italiani*. Raoul Rochette made a French translation of this work. Micali's last book was the *Monumenti Antichi*, which was issued the year of his death.

MICASLATE, a variety of mica-schist (q. v.) containing more clayey matter than that which generally passes under the name of schist, and also having the micaceous scales more finely divided, so that they are scarcely visible by the unaided eye. Practical geologists use the term to designate a condition midway between mica-schist and clay slate. *Hydromica schist*, or *slate*, is a thin schistose rock consisting principally of hydrous mica, with occasionally more or less quartz, and having a greasy feel, like talc (q. v.); whitish to pale green, and darker, in color; pearly to glistening luster. It used to be called talcose slate, but contains no talc, as shown by Dr. C. Dewey. There are several varieties.

MICHAEL, THE ARCHANGEL, meaning in Hebrew, "*Who is like God*," in Scripture a prince among the angels, whom the Divine Being, that appeared to Daniel in human form, described as a guardian of the Jewish people co-operating with him in their behalf, thwarting the efforts of their human adversaries and resisting also the schemes of Satan against them. This is in accordance with other Scripture teachings concerning the angel Jehovah as directing the history of Israel and concerning the angels as subject to him in the work of redeeming men. In the epistle of Jude Michael is called the archangel, and it is said concerning him that "when, contending with the devil, he disputed about the body of Moses, he durst not bring against Satan a railing accusation, but said, The Lord rebuke thee." Some interpret this passage as affirming a dispute about the literal body of Moses which the Lord buried in a sepulcher unknown to men. Others regard the "body of Moses" as a symbolical phrase for the Mosaic law and institutions, in accordance with the common usage among Christians in speaking of the church as the "body of Christ." In the book of Revelation, xii. 7-9, in language which is symbolical whatever its precise significance may be, it is declared that "there was war in heaven. Michael and his angels fought against the dragon and his angels, who prevailed not, neither was their place found any more in heaven. And the great dragon was cast out, that old serpent, called the devil and Satan, who deceiveth the whole world: he was cast out into the earth, and his angels were cast out with him." The nature and method of this war against Satan are not explained; the fact itself is revealed with that mysterious vagueness which hangs over all angelic ministration, but also with positiveness. In addition to what the Scriptures reveal concerning the archangel there are various legends connected with his canonization as a saint in the church of Rome, where his festival, called Michaelmas, is celebrated on Sept. 29. In legendary art he is represented as young

and beautiful, winged, in armor, bearing the shield and lance, with his foot on the evil one, ready to pierce and bind him. An old English gold coin bearing his image was therefore called an "angel." Of such Shakespeare speaks, when he says of a rich man, "he hath a legion of angels" in his purse.

MICHAEL, the name of six emperors of Constantinople.—I. succeeded to the throne on the death of Stauracius, in 811, who conducted a war against the Bulgarians, and was a great and just monarch; he was deposed by Leo, the Armenian, a gen. in his service. 813, and retiring to a monastery, passed the remainder of his life in devotional exercises.—II. was born in upper Phrygia, of an obscure family, but was ennobled by Leo, the Armenian. The latter, however, appears to have become angered against him, and imprisoned and condemned him to death. His life was saved by the assassination of Leo, and Michael was crowned emperor, 820. He was cruel and arbitrary; and his attempt to force his subjects to celebrate the Jewish Sabbath and passover brought about a revolt on the part of his gen. Euphemius, who proclaimed himself emperor. The rebellious gen. was slain near Syracuse, in Sicily. Michael was surnamed "the stammerer." During his reign the Saracens of Spain wrested the island of Crete from the empire, and in 827 the Aglabite Saracens seized Sicily. Michael died, 829.—III. succeeded his father, Theophilus, in 842, under the regency of his mother, Theodora, whom he compelled, with her daughters, to enter a convent. In his reign the Russians first appear as foes to the empire; and the foundation for the separation of the eastern and western churches was laid by a quarrel between the patriarch Photius and the pope Nicholas I. Michael was assassinated by Basil the Macedonian in 867.—IV. surnamed the Paphlagonian, from the place of his birth, was raised to the throne by the empress Zoe, who, on account of her infatuation for him, murdered her husband. He was successful in wars against the Saracens and Bulgarians, but retired to a monastery, where he died in 1041.—V. succeeded the last-named, who was his uncle. Having exiled the empress Zoe, who desired to marry him, he was overthrown by the people, and after having his eyes put out, was sent to a monastery.—VI. succeeded the empress Theodora in 1056, but retained the throne only a year, when he was compelled to resign in favor of Isaac Comnenus, while he retired to a monastery. Michael VI. was surnamed Stratioticus, and with him the Macedonian dynasty became extinct, his successor being of the family Comneni.

MICHAEL, or MIKAIL, ROMANOFF. See ROMANOFF, *ante*.

MICHAEL BRADACIUS, the first Moravian bishop, at first a Hussite priest at Zamberg in the eastern part of Bohemia, in the middle of the 15th century. When the Moravian brethren left the national church and established a ministry of their own, Michael having joined them was sent with two other priests to a Waldensian colony on the frontier of Bohemia and Austria for the purpose of securing the episcopacy. They were consecrated the first bishops of the Bohemian brethren. A church council was organized of which Michael was constituted the president. After a while he resigned, and Matthias of Kunwalde became president.

MICHAELMAS DAY (*ante*), a day set apart according to the Roman Catholic church to offer thanks to God for the benefits received by the ministry of angels, and called Michaelmas in honor of St. Michael the archangel, whose power and vigilance saved the church from her enemies. The feast of St. Michael or Michaelmas was instituted, according to Brady, in 487, and Sep. 29 was fixed for the celebration, the day on which St. Michael's church on Mount Garganus was dedicated. There is a tradition that this feast was instituted by Alexander, bishop of Alexandria. There was a superstition in the 10th c. that on every Monday morning St. Michael held high mass in the churches. The Greek and other eastern churches, the church of England, and some other reformed churches, continue to observe the feast of St. Michael, in order, as Wheatly says in his book *On the Common Prayer*, "that the people may know what benefits Christians receive by the ministry of angels."

MICHAUD, JOSEPH FRANÇOIS, 1767-1839; b. in Savoy, educated in the ecclesiastical college of Bourq; at 19 employed in a book-store at Lyons; author, the following year, of *Voyage au Mont Blanc*, followed by other essays. In 1790 he had the good fortune to meet the comtess Fanny de Beauhaenais who persuaded him to go to Paris, where he became a hearty follower of Voltaire and Rousseau, espoused republicanism by the force of the current around him, but was at heart, and by his social liens remained, a conservative and royalist. After the fall of Robespierre he contributed to the *Quotidienne* articles so squarely favoring the restoration that it became necessary for him to leave Paris. He was arrested, condemned to death, escaped, and passed four years in Switzerland and south France, occupied in light literary work. Returned to Paris in 1799; in 1803 published the poem *Printemps d'un Proscrit*. In 1806, in partnership with a younger brother, a printer, he undertook the great work *Biographie Moderne* in which the public men who were actively engaged in the great revolution were painted with dark colors. Michaud was led into history by a request of Mme. Cotton to write an introduction to her *Mathilde*, which called for an examination of original documents on the crusades, in which he became so deeply interested that it resulted in a work entitled *Tableaux Historique des Trois Première Croisades*, in the form of a romance published in 1807. Michaud

was made member of the French academy in 1812. After the return of Louis XVIII. he was a pronounced adherent of the old dynasty, and in the *Quotidienne*, which he then edited, advocated all the tyrannous reactions of the Bourbon government. His poems though numerous, and in their time popular with those who sympathized with his opinions, are not of a high order. His *L'Apothéose de Franklin*, 1792, is interesting to Americans. The *Dernier Règne de Buonaparte*, published in 1815, is a valuable contribution to the history of that time.

MICHAUX, ANDRÉ, 1746-1802; b. France; studied science under the botanist Jussieu, and the astronomer Lemonnier. In 1779 he traveled in England, whence he brought into France some new plants and shrubs. The next year he traveled through Auvergne and the Pyrenees, and, on his return to Paris, introduced several new varieties of Spanish grain. In 1782 the count of Provence, afterwards Louis XVIII., sent him to Persia on a scientific mission. On his arrival he was robbed by the Arabs of all his effects except his books. Assisted by the British consul at Bassora he went on as far as Ispahan, where he cured the shah of a dangerous disease. After spending two years in Persia he brought back to France a fine collection of dried plants and seeds. In 1785 he traveled extensively in North America on a scientific mission at the expense of the government; but the French revolution compelled him to return for want of funds. He was shipwrecked on the voyage to France, and lost nearly all his specimens. On his arrival in Paris in 1796 the directory would give no adequate recompense for his losses. In 1800 he sailed for Madagascar, where he died. His most important publications are *Histoire des Chênes de l'Amérique Septentrionale*, 1801; and *Flora Borealis Americana*, 1803. It is said that much of the latter work is the production of prof. Louis Claude Richard.

MICHAUX, FRANÇOIS ANDRÉ, 1770-1855; b. France; son of André. He came to the United States three times in the employ of the French government, and made explorations among the North American forests for the purpose of bringing into Europe new varieties of trees. His *Histoire des Arbres forestiers de l'Amérique Septentrionale* contains the results of his American explorations, and gives an account of the distribution and the scientific classification of the principal American timber-trees, and the nature and uses of their timber. He also wrote a work *On the Naturalization of Forest Trees in France; Journey to the West of the Alleghany Mountains*; and *A Notice of the Bermudas*.

MICHEL, FRANCISQUE XAVIER, b. in Lyons, 1809, and there educated. He went to Paris on the completion of his school studies, contributed articles to several journals, and soon became interested in the literature of the middle ages. In 1830 he was sent by Guizot to England to examine documents pertaining to the ancient history of France. In 1837 he was in Scotland on the same mission. In 1839 Michel was called to the professorship of foreign literature at Bordeaux. He is member of the académies of inscriptions of Paris, Turin, and Vienna; and of the society of antiquaries of France and London. Among his original works are: *Job, ou les Pasteurs*, 1832; *Histoire des Croisades*, 1833; *Deux Armées du Règne de Henri II., roi d'Angleterre* 1841; *Histoire des Races Mandées de la France et de l'Espagne*, 1847, 2 vols., an unique contribution to history; *Les Ecossais en France, et les Français en Ecosse*, 1862, 2 vols.; etc.

MICHELET, KARL LUDWIG, b. Berlin, 1801; graduated at the university of Berlin, receiving the degree of PH.D. in 1824. The following year he was appointed professor of philology and philosophy in the French gymnasium, and continued to hold this position for twenty-five years. During a portion of this period he was also professor of philosophy in the university of Berlin. He published a large number of works on metaphysical subjects, including the following: *System der philosophischen Moral*; *Die Ethik des Aristoteles*; *Geschichte der letzten Systeme der Philosophie in Deutschland von Kant bis Hegel*; *Anthropologie und Psychologie*; etc. From 1860 he edited the Berlin *Gedanke*, representing the philosophical society of that city.

MICHELIS, FRIEDRICH, b. Germany, 1815; educated to the profession of theology; ordained a priest at Munster, his birthplace, and became a private tutor. In 1864 he received the appointment of professor of philosophy at the lyceum of Braunsberg. Two years later he was an opponent of the ecclesiastical policy of Bismarck in the Prussian chamber. Notwithstanding this fact, he also opposed the Jesuitical influence and the dogma of the infallibility of the pope; publishing several pamphlets in support of his views, and incurring the displeasure of Rome, and eventually excommunication. He wrote in opposition to the theories of Darwin, and his intention appears to have been to reconcile the teachings of modern science with the doctrines of the Roman Catholic church. His most important work is *Die Philosophie Platon's in ihrer innern Beziehung zur Geoffenbarten Wahrheit*. He has of late edited an anti-Jesuit publication called *Der Katholik*.

MICHIGAN, LAKE (*ante*), containing an area of about 22,400 sq.m., 2,000 sq.m. larger than lake Huron. Its banks are low and sandy, containing rocky sections of sandstone and limestone, but no high bluffs. Inland the sand hills rise to the height of 150 ft. Its waters are wearing away the Wisconsin shores and leaving land on the Michigan side. Its outlet is through the straits of Mackinaw into lake Huron at its n.e. extremity, near the old trading-post of Mackinaw. Racine, a city of Wisconsin at the

mouth of the Root river, and Manitowoc, Wis., at the mouth of a river of its own name, are among the larger cities on its borders. The best harbors are in the bays, and are artificially formed. Its islands are in the n. portion; the largest, Beaver island, 50 m. long, and the Fox islands in the n.e. It has 2 large bays—Green bay, 100 m. long, and Grand Traverse bay, 30 m. long, and 3 of lesser dimensions, Little Traverse bay, Little bay of Noquet, and Big bay of Noquet. It has important fisheries; white-fish and large trout are taken and exported in large quantities, fresh and canned. The largest rivers which empty into it are the St. Joseph, the Muskegon, the Grand, emptying into the lake at Grand Haven; the Kalamazoo, 200 m. long, the Manistee, 50 m. long, all in Michigan; the Fox in Wisconsin, and the Menomonee in Wisconsin, emptying into Green bay.

MICHIGAN (*ante*) derives its name from two Chippewa words, *mitchi* and *sawgyegan*, meaning "lake country." The discoverers and first settlers of the territory were the French missionaries and fur-traders, some of whom visited the site of Detroit as early as 1610, while in 1641 some French Jesuits found their way to the falls of the St. Mary. The first actual settlement by Europeans within the limits of the state was the mission at Sault Ste. Marie, founded by father Marquette and others in 1668. Three years later fort Michilimackinac (now Mackinaw) was established. Detroit was founded in 1701 by an expedition under Antoine de la Mothe Candillac. The territory fell into the hands of the English with other French possessions in 1763. After this event the Indian chief Pontiac organized a conspiracy to exterminate the whites, when a bloody conflict ensued. The garrison at Mackinaw was butchered, and Detroit was subjected to a long siege. It was not until 1796, 13 years after the peace of 1783, that the United States took actual possession of this region, though it was included within the boundaries of the northwest territory, so-called, and amenable to the ordinance of 1787. Afterwards it formed for a time a part of the territory of Indiana. In 1805 it was erected into a separate territory, with substantially its present boundaries, gen. William Hull being appointed governor. During the war of 1812–15 the inhabitants were sorely harassed by the Indians and the British. Gen. Hull surrendered Detroit to the British under circumstances which led to his trial and condemnation to death by court-martial. The sentence was not executed, however, and facts afterwards came to light which partially, or it may be wholly, relieved him from blame. Mackinaw was also captured, and at Frenchtown, early in 1813, a number of American prisoners were massacred by the Indians. Shortly afterwards gen. Harrison succeeded in driving the British out of the territory, and in 1814 a truce was concluded with the Indians. In 1816–17 a considerable portion of the territory was surveyed, and in 1818 a large body of land was offered for sale. In 1819 the territory was authorized by act of congress to send a delegate to that body. At different times from 1819 to 1836 the Indians ceded large tracts of land to the territory, and at the last-named date all the lower and a part of the upper peninsula had been freed from Indian titles. Partly in 1818 and partly in 1834 the territory now forming the state of Wisconsin was annexed to Michigan; but in 1836 it was erected into a territory by itself, and Michigan was reduced substantially to its original boundaries. Previous to 1823 the legislative power was vested in the governor and judges, but in that year it was transferred to a council consisting of 9 persons selected from 18 chosen by the people of the territory. In 1825 the council was increased to 13 members chosen upon the same plan, but in 1827 the law was changed so as to provide for the election of the councilors by the popular vote. In 1831 gen. Cass was succeeded by George B. Porter as governor, and the latter, dying in 1834, was succeeded by Stevens T. Mason. In 1835 a state constitution was adopted by a convention called for the purpose. It claimed jurisdiction over a strip of land also claimed by Ohio. There was danger that the dispute would lead to bloodshed, but in 1836 congress agreed to admit Michigan to the union upon condition that she should surrender her claim to the disputed territory and accept in lieu thereof a larger area in the upper peninsula. The first convention called to consider this proposal rejected it, but it was accepted by a second in Dec., 1836, and in January following Michigan was admitted to the union as a state. In 1847 the seat of government was removed from Detroit to Lansing, the latter at that time being in a dense wilderness. It is now a flourishing town, and the state capitol is one of the largest and finest structures of the kind in the United States.

Michigan is comprised in two peninsulas of irregular shape, separated from each other by the strait of Mackinaw, connecting lake Michigan with lake Huron. The largest of these peninsulas embraces the whole territory lying between these two lakes, and at its s.e. corner touches lake Erie. From lake Erie to the southern end of lake Huron it is divided from Canada by the Detroit and St. Clair rivers, the latter flowing into the former through lake St. Clair. The great mass of the inhabitants of the state at the present time dwell on the southern half of this peninsula, the northern portion, together with the whole of the upper peninsula, being very sparsely inhabited.

The upper peninsula, containing a little more than one-third of the state's area, is rugged and broken, and in parts mountainous. The Porcupine range of mountains is the watershed between the streams flowing into lake Superior and those flowing into lake Michigan. This range at its highest point is 1400 ft. above lake Superior—2,000 ft. above the sea. The surface on each side of the mountains presents a rugged aspect,

with some picturesque scenery and considerable variety of soil. At the eastern end the mountains at their highest points do not rise more than 400 ft. above lake Superior. There are numerous lakes and marshes, and great forests, where pine and other soft woods are the prevailing growths, though fine groves of sugar-maple are found in some places. In some portions of the peninsula the forests have been destroyed by fire, thus transforming the region into a desert. The n.w. extremity of the peninsula is celebrated for its extensive deposits of copper and iron. The sugar-maple is found here in great abundance and of the best quality, but the soft woods are scarce. The land is generally sterile. The northern peninsula is 318 m. in length from e. to w., and from 30 to 160 m. in width, and in 1874 contained 61,814 inhabitants.

The southern peninsula, or Michigan proper, is in almost every respect a contrast to the northern. The surface is generally level, though in the s. it is broken by low conical hills rising from 30 to 200 feet. The length of the peninsula from s. to n. is about 275 m., its width 259 miles. It is unequally divided by a low water-shed extending from s. to n., and rising at the highest point from 600 to 700 feet. The larger portion of the peninsula lies w. of this water-shed, which slopes gradually towards lake Michigan. The shores on both sides are in many places steep, curving picturesquely around numerous bays and inlets. On lake Michigan they are frequently broken by bluffs and sand-hills from 100 to 300 ft. high. The s. portion of the peninsula is very fertile, the n. portion less so.

The islands in the state are numerous. The principal of these are Isle Royal and Grand Isle in lake Superior; Sugar and Nebish islands in St. Mary's strait, and Drummond island at its mouth; Marquette, Mackinaw, and Bois Blanc islands near the n. end of lake Huron; and the Beaver, Fox, and Manitou groups in the n. end of lake Michigan. The principal rivers are the Cheboygan, Thunder Bay, Au Sable, and Saginaw, flowing into lake Huron; the Huron and Raisin, into lake Erie; the St. Joseph, Kalamazoo, Grand, Muskegon, Manistee, Grand Traverse, Manistique, and Escanaba, into lake Michigan; and the Ontonagon and Tequamenon, into lake Superior. Most of these rivers are small, though several are navigable for short distances. Many small ponds are scattered through the state.

There is a coal field of 12,000 sq.m. in extent in the s.e. part of the state, but the veins are so far below the surface that they cannot be worked to advantage. The supplies of fuel for the iron-works on lake Superior are more cheaply obtained from Ohio. Limestone is abundant, and on the shores of lake Huron, in the n. part of the state, are formations which yield excellent grindstones. In the valley of Saginaw river salt is obtained by boring. The most productive copper region in the world, except that of Chili, is at the n.w. end of the upper peninsula. The veins sometimes bear silver in small quantities. The copper mines are mainly in the counties of Ontonagon, Houghton, and Keweenaw. The iron mines are principally in Marquette county. In the peninsula are remains of ancient mines and mining implements, which justify the presumption that at some distant period in the past the country was occupied by a race advanced in civilization.

Among the natural curiosities of the state are the "pictured rocks," so-called, on the shores of lake Superior, not far w. of Sault Ste. Marie. They are sandstone rocks worn by the water into picturesque shapes, resembling old castles, temples, arches, etc., which, viewed from a steamer's deck, are impressive and wonderful. In some instances the upper surface of these bluffs projects so far over the lake that steamers pass directly under them, and behind cascades which fall from the summits.

The climate of the lower peninsula is so tempered by the proximity of the lakes that it is much milder than that of other regions in the same latitude. The northern peninsula in winter is very cold. The average annual difference of temperature between the two peninsulas is 7°. Oak openings and prairies are the most characteristic feature of the lower peninsula. In the forests the prevailing growths are the sugar-maple, oak, walnut, ash, hickory, elm, linden, locust, dogwood, beech, sycamore, cherry, pine, hemlock, spruce, tamarack, cypress, cedar, and chestnut. In the n. portion of the peninsula the white pine is a source of wealth. The soils on the lower peninsula are well adapted to the production of fruit. Apples are produced in large quantities. Peaches grow well on the shores of lake Michigan, while grapes are extensively produced on the shores of lakes Michigan and Erie, and in the river valleys. Pears, quinces, plums, cherries, and the small fruits generally, are raised in perfection in the interior as well as on the borders of the lakes.

The extensive forests of northern Michigan are a covert for large numbers of wild animals, among which are the black bear, wolf, lynx, wildcat, panther, fox, weasel, marten, badger, skunk, mink, otter, raccoon, opossum, beaver, marmot, hare, rabbit, and squirrel. Deer are plenty in some parts, and the elk is not yet extinct. The birds are of great variety, and the waters of the state are well stocked with edible fish.

As an agricultural state Michigan ranks high. The number of farms in 1879 was 111,822, embracing 5,785,102 acres of improved and 4,530,486 of unimproved land—in all, 10,315,588 acres. Number of horses, 272,603; of milch cows, 291,243; of other cattle, 338,910; hogs, 493,109; sheep, 1,772,312; number of acres in apple orchards, 229,262; in peach orchards, 10,771. The latest crop statistics are those of 1878, from which the following items are gathered: Bushels of wheat raised, 29,511,889; corn, 36,663,299; oats, 13,454,517; clover-seed, 166,465; barley, 806,463; peas, 641,061; potatoes, 6,190,406; tons of hay, 1,124,931; lbs. of wool, 8,666,467; bush. of apples sold,

3,944,206; of peaches, 107,244; lbs. of grapes sold, 1,014,950; bush. of cherries, currants, plums, and berries, 100,493. The cash value of farms in 1870 was estimated at \$398,240,578; of farming implements and machinery, \$13,711,979; wages paid during the year, \$8,421,161; value of farm productions, \$81,508,623; of orchard products, \$3,447,985; of produce of market gardens, \$352,658; of forest products, \$2,559,682; of home manufactures, \$338,000; of animals slaughtered or sold for slaughter, \$11,711,624; of live stock, \$49,809,869. In 1873 there were sold, of dried fruits, 2,664,709 lbs.; of cider, 182,347 bbls.; of wine, 50,858 galls.; of 2-lb. cans of fruit, 1,003,803; of maple sugar, 4,319,793 lbs. The aggregate value of real estate assessed in 1875 was \$308,753,036; of personal property, \$66,127,992. These figures are supposed to represent but one-third of the real value of the property.

According to the census of 1870 there were in the state 9,455 manufacturing establishments, giving employment to 63,694 persons, of whom 2,941 were females above 15, and 2,406 were under that age. The capital invested was \$71,712,283; wages paid, \$21,205,355; value of products, \$118,394,676. The principal industries, with the value of their products respectively in 1870, were, Agricultural implements, \$1,569,596; blacksmithing, \$1,581,357; boots and shoes, \$2,552,931; carpentering and building, \$3,976,333; carriages and wagons, \$2,393,328; railroad cars, \$1,488,742; clothing, \$2,577,154; cooperage, \$1,176,768; copper, milled and smelted, \$9,260,976; flouring and grist mill products, \$21,174,247; furniture, \$1,953,888; iron products, \$4,938,947; leather, \$2,670,608; distilled and fermented liquors, \$1,321,286; lumber, planed and sawed, \$33,078,241; machinery, \$2,330,564; printing and publishing, \$1,071,523; salt, \$1,176,811; sash, doors, and blinds, \$1,868,596; tobacco and cigars, \$2,572,523; woolen goods, \$1,209,518. Other industries, the products of which ranged from \$96,000 to \$967,000 respectively, were masonry, brick and stone; tin, copper, and sheet-iron ware; wooden ware; ship-building; meat packed; paper; saddlery and harness. The lumber statistics of 1879 show: Number of mills, 64; men employed, 4,003; lumber cut, 2,289,066,855 ft.; shingles cut, 635,619,150. The salt product of 1879 was 2,058,040 bbls.; the wheat product, 10,290,200 bush.; product of iron mines, 1,453,765 tons, valued at \$7,413,114. The total product of the copper mines in 1877 was 24,958 tons; total product from 1845 to 1877 inclusive, 289,188 tons; ingot copper, 1877, 19,966 tons, valued at \$7,586,480; total value of product from 1845 to 1877, \$116,928,280; total assessments from 1845 to 1877 by working mines, \$3,960,000; total dividends paid in same time, \$21,780,000; dividends paid in 1877, \$1,740,000. The catch of fish from the lakes in 1870 was valued at \$567,576.

The value of foreign imports in 1874 was \$2,353,786; of exports, \$9,526,629; number of vessels which entered the ports of the state, 4,682—tonnage, 1,420,317; vessels cleared, 4,718—tonnage, 1,431,355. The foreign trade is almost entirely with Canada. The exports consist for the most part of grain, flour, hogs, lumber, beef, pork, tobacco, cotton, and railroad cars. The vessels registered in the state in 1874 were: sailing, 368, of 52,907 tons; steamers, 358, of 68,239 tons; vessels built: steamers, 34, of 8,834 tons; sailing, 42, of 15,383 tons.

The railroad statistics for 1878 were as follows: Miles of track, 3,564; capital stock paid in, \$148,152,011; total debt, \$161,373,748; cost of roads and equipment, \$154,256,078. The railroad interests are represented by 41 distinct corporations, but the roads are actually managed by 27 companies. Of the 11,552 stockholders 4,550 reside in the state, holding \$4,635,819 of the more than \$147,000,000 of capital. But 5 of all the roads paid dividends in 1878, viz.: the Chicago and Northwestern; Detroit Lansing and Northern; Lake Shore and Michigan Southern; Michigan Central; and Mineral Range. There is a ship-canal about a mile long around the falls of the St. Mary's at Sault Ste. Marie, which is of great advantage in facilitating commerce between lakes Superior and Huron; and another, two miles long, connecting Portage lake with lake Superior on the w. side of Keweenaw point. The first of these canals was opened in 1855, the second in 1873.

In 1873 there were in Michigan 77 national banks, with a capital of \$9,802,200; and a circulation of \$7,139,217. In 1879 there were 14 state and 14 savings-banks. The capital of the former was \$874,400; resources of the latter, \$7,958,675. The number of insurance companies authorized to transact business in Michigan in 1878 was 195, of which 50 were incorporated under the laws of the state. One of these was a life insurance company, with assets amounting to over \$900,000, and risks amounting to \$11,641,000. Two stock fire companies had risks amounting to \$22,000,000; 47 farmers' mutual fire companies, with 57,000 members, had at risk \$107,000,000. From 1870 to 1877 the aggregate business of stock fire companies in the state was as follows: Risks, \$1,210,261,365; premiums received, \$17,071,744; losses, \$9,817,689. During the same period these companies paid to the state in taxes about \$500,000. The number of life insurance companies of other states doing business in Michigan in 1878 was 28. The whole number of policies on the lives of citizens of the state was about 22,000, representing insurance to the amount of \$42,000,000.

Michigan takes a high rank in all matters pertaining to education. The school statistics for the year ending Sept. 1, 1879, were as follows: Number of school districts, 6,248; children of school age, 486,933; whole number attending school, 342,018; number of teachers, 18,616; total wages of teachers, \$1,880,945; average monthly wages of male teachers, \$38.69; of female teachers, \$23.48. Amount of moneys from preceding year,

\$729,744; received from two-mill tax, \$494,011; from primary school fund (\$2,743,519), \$229,384; from district taxes, \$2,049,755; from all other sources, \$340,893—total receipts for the year, \$3,843,790. Expenditures: Male teachers, \$712,594; female teachers, \$1,160,865; for building and repairs, \$864,135; bonded indebtedness, \$329,466; all other purposes, \$497,576. The state normal school, opened in 1853, has graduated nearly 1000 teachers. It is well organized and efficiently managed, having four courses of instruction—common school, full English, ancient languages, and modern languages. Few states of the union have made more ample provision for the higher education of youth than Michigan. High schools or academies, supported by state funds and taxes, are established in all the larger cities and towns; the state university at Ann Arbor, one of the foremost of American colleges in respect both of its endowments and courses of instruction, went into operation in 1842, and is open to students of both sexes on equal terms. The state agricultural college, near Lansing, affords instruction for those who wish to fit themselves for agricultural pursuits. Besides these there are six other colleges under the patronage of different religious denominations, nearly all of which are open to students of both sexes. There are for women several seminaries of a high grade. The professional schools equal the best elsewhere.

The bonded debt of the state in 1879 was \$913,149; and at the same time there were on hand applicable to its payment funds amounting to \$912,000. The total resources of the state, applicable to ordinary expenses, amounted in 1879 to \$2,626,153; the expenses of the year were \$2,019,885, leaving a balance of \$606,267. The trust funds (mainly for educational purposes) for which the state is accountable amount to \$3,419,145. The new capitol at Lansing, costing \$1,390,000, the corner-stone of which was laid in 1873, was dedicated Jan. 1, 1879.

In 1873 there were in the state 253 newspapers and periodicals, of which 22 were dailies, 3 tri-weeklies, 209 weeklies, 2 semi-monthlies, 1 fortnightly, and 16 monthlies. According to the census of 1870 the whole number of libraries was 26,763, of which 23,761 were private; total number of volumes reported, 2,174,744, of which 1,196,113 were in the private libraries; 423 town and city libraries had 14,207 volumes; 246 school and college libraries, 37,734 volumes; public school libraries, 125,331 volumes; 1731 Sunday-school libraries, 239,471 volumes; 436 church libraries 811,891 volumes; 116 circulating libraries, 53,704 volumes.

The principal charitable, reformatory, and penal institutions of the state are: the Michigan asylum for the insane at Kalamazoo, organized 1854; the eastern Michigan asylum, founded at Pontiac, 1873; the Michigan state retreat for the insane, near Detroit, under the care of the sisters of charity; the institution for the deaf and dumb, at Flint; the state asylum for the blind (now nearly completed); the state public school at Coldwater, designed to "provide for all the dependent children of the state, whether in or out of the county poor-houses, who are sound in body and mind, to maintain and educate them while temporarily in the school," and until homes can be provided for them; the state reform school at Lansing; the state house of correction at Ionia; the reform school for girls; the Detroit industrial school; the state prison at Jackson.

The population of Michigan has risen from 551 in 1800 to 1,636,331 in 1880. The inhabitants of foreign birth numbered in 1870 only 268,000. The number of males in 1874 was 697,184; of females, 636,847. The governor and other state officers are elected once in two years, the day of election being the Tuesday after the first Monday in November. The governor's veto can be set aside by a vote of two-thirds of both houses of the legislature. The legislative power is vested in a senate of 32 and a house of representatives not exceeding 100 members, elected for two years, and meeting every alternate year on the first Wednesday of January. The supreme court consists of a chief-justice and three associate justices, elected for 8 years, and eligible to re-election. The court has both appellate and original jurisdiction. There are 14 circuit courts, each presided over by one judge, elected for 6 years; they have original jurisdiction in all matters civil and criminal, and appellate jurisdiction from all inferior courts. The salaries of the supreme court judges are \$4,000 per annum, those of the circuit court judges, \$1800. A probate judge is elected in each county for 4 years; justices of the peace in every township for the same term. The church organizations in 1870 numbered 2,239; church edifices, 1415; church property, \$9,133,816. The principal denominations are: Baptist, Freewill Baptist, Christian, Congregational, Episcopal, Evangelical Association, Friends, Disciples, Jews, Lutheran, Methodist, Presbyterian, Reformed Dutch, Reformed German, Roman Catholic, Second Advent, Spiritualist, United Brethren in Christ, Unitarian, and Universalist.

The electoral votes of Michigan for president and vice-president of the United States have been cast as follows: 1836, 3 for Van Buren and Johnson; 1840, 3 for Harrison and Tyler; 1844, 5 for Polk and Dallas; 1848, 5 for Cass and Butler; 1852, 6 for Pierce and King; 1856, 6 for Fremont and Dayton; 1860, 6 for Lincoln and Hamlin; 1864, 8 for Lincoln and Johnson; 1868, 8 for Grant and Colfax; 1872, 11 for Grant and Wilson; 1876, 11 for Hayes and Wheeler; 1880, 11 for Garfield and Arthur.

MICHIGAN CITY, a t. in Indiana, on the s. shore of lake Michigan and on the Michigan central railroad, at the junction of the Louisville, New Albany, and Chicago railroad with the Indianapolis, Peru, and Chicago; pop., '70, 3,985. It is delightfully

situated at the mouth of Trail creek, about 38 m. from Chicago by water, 56 m. by rail, 13 m., n.w. of La Porte, and 140 m., n.w. of Indianapolis. It is the center of an important trade in salt and lumber, and the commerce of the lake, and as a shipping point for iron ore. It contains the northern state prison, has two newspapers, and a national bank. It has good schools and is the seat of Ames college. Its industries are the manufacture of lumber, wagons, boots and shoes, and furniture; and it has planing mills, foundries, locomotive works, and the railroad repair shops of the lines which center there.

MICHIGAN STATE AGRICULTURAL COLLEGE, at Lansing the capital of the state, is the oldest of all the institutions of the kind in the country. It was established in obedience to a direct provision of the constitution of the state, Feb. 12, 1855, and opened to students May 13, 1857. It is endowed by the sale of lands given by the general government to the state in 1862. Of the 235,673 acres so given, 86,121 acres have been sold, forming a fund of \$275,104, on which the state pays 7 per cent interest to the college for its current expenses. The annual income of about \$18,000 is supplemented by liberal appropriations on the part of the state. The property of the college, exclusive of the lands and endowment fund, is \$275,000. The college buildings stand in a park of about 100 acres, being a part of its farm of 676 acres. The principal buildings are a college hall for chapel, library, general museum, and class rooms, two dormitories with the armory in one of them, a chemical laboratory, a botanical laboratory, a greenhouse with propagating houses attached, an apiary, 5 farm barns, piggery, carpenter's shop, 5 dwelling houses. It has farm gardens of various kinds, botanical grounds, an arboretum, orchards, stock, etc. Its collections in natural history and its apparatus are of considerable value. Its library contains about 5,000 bound volumes and 900 pamphlets. The college has but one course of study, four years in length, embracing, besides agriculture, horticulture, and the sciences connected therewith, the elements of a general education. It has 7 professors, and 6 other officers, 232 students; and 205 alumni. Women are admitted into the classes, and one woman has been graduated. Students are required to labor three hours each day, Saturdays and Sundays excepted, and for the most of this labor a small compensation is given. The state has on deposit arms and accouterments, and a volunteer military company drills once (usually twice) a week. There is no preparatory department. President, T. C. Abbot.

MICHIGAN UNIVERSITY or, at Ann Arbor, Washtenaw co., Mich., was founded in 1837, though not opened until 1842. Its first endowment was the gift by congress in 1826 of two townships of land. It is supported by the state, and open to students of both sexes, without charge for tuition, on payment of a small matriculation fee and the annual payment of \$15. It is a part of the public educational system of the state, the constitution providing for the perpetuation of the governing body of the institution, the board of regents. It aims to complete and crown the work which is begun in the public schools, by furnishing ample facilities for liberal education in literature, science and the arts, and for thorough professional study of medicine, law, and dentistry. While Michigan has endowed her university primarily for the higher education of her own sons and daughters, she also opens its doors to all students, wherever their homes. Students from other states are asked to pay a larger admission fee than students from Michigan, but in all other respects their advantages are the same. The university comprises the department of literature, science and the arts, the department of medicine and surgery, the department of law, the school of pharmacy, the homœopathic medical college, and the dental college. Each of these departments and colleges has its faculty of instruction, who are charged with the special management of it. The university senate is composed of all the faculties, and considers questions of common interest and importance to them all. Post-graduate courses are provided for the graduates of this university, or for the graduates of any college or university who may desire to pursue advanced study whether for a second degree or not. The school of pharmacy is a distinct school, having a regular course of two years. The libraries of the university accessible to the students, amount, in the aggregate, to about 36,000 volumes. The astronomical observatory contains the large meridian circle constructed by the famous makers, Pistor & Martins, of Berlin, one of the largest and best of the kind; a sidereal clock, made by Tiede, of Berlin; the collimators for the meridian circle; the library of the observatory, and the smaller instruments. One of these is a chronograph with Bond's new isodynamic escapement, for recording observations by the electro-magnetic method. In the dome is mounted a large refracting telescope, with an object glass 13 in. in diameter, constructed by the late Henry Fitz, of New York. A set of self-registering meteorological instruments has recently been added. It consists of Hough's barograph and thermograph, Robinson's anemometer with Gibbons's self-registering attachment and an anemograph. Means have been provided for the erection of a small observatory for the purpose of instruction, on the observatory grounds near the main building. A fire-proof museum building 127 by 47 ft., has just been erected. The collections in the museum embrace 6,000 mineralogical specimens; a geological cabinet, with 41,000 specimens; zoological cabinet with over 110,000 specimens; a botanical cabinet, containing 10,000 species, 20,000 entries, and 70,000 specimens; exhibitions in archaeology and relics, embracing memorials of the native Indian tribes; collection in department of fine arts and history, embracing a gallery of casts of the most valuable ancient statues and busts, terra cotta models, gallery

of engravings and photographic views executed in Italy and Greece, historical medallions, and copies of modern statues, busts and reliefs by the great masters. The anatomical museum is rich in valuable specimens. There are no dormitories and no commons connected with the university. The university (1880) is served by 36 professors, 9 assistant professors, and 16 lecturers and assistants. Number of students in 1880: department of literature, science and art, 448; department of medicine and surgery, 350; department of law, 395; school of pharmacy, 81; homœopathic medical college, 70; college of dental surgery, 83; total, 1427. President, James B. Angell, LL.D.

MICHILMACKINAC. See MACKINAW, *ante*.

MICHOACAN', or MECO'ACAN, a political division, or state of Mexico, extending over the table-land of the same name, and the low country lying between it and the Pacific, and a portion of the hilly country s. of these districts; 21,609 sq.m.; pop. '68, 618,240. Its n.e. districts are watered by the river Santiago. The Sierra Madre and its branches traverse it in all directions; and within its territory are the lake of Patzcuaro, the peak of Tancitaro, and the volcano of Xorullo (Jorullo). The Cerro de Santa Rosa, in the district of Tlapujahua, about 17,000 ft. in height, is the highest point. The mountain ridges are divided by fertile valleys, drained by the Lerma, Mescala, and other rivers, and numerous mountain streams. The largest lakes are the Patzcuaro, already named, 30 m. in circumference; and Chapala, which is 60 m. long by 20 wide. The coast line is 100 m. in extent, the only ports being San Telmo, Maratua, and Buceria. The state is divided into 17 districts; the climate is very variable, the mean annual temperature in the capital being 71° F. The country has large mineral deposits, including gold, silver, copper, iron, coal, cinnabar, lead, sulphur, emery, lithographic stone, and copperas. The mines are but little worked, the annual yield being at present a little more than one million dollars, that of silver being one-third of the amount. In the districts along the n. boundary line carbonate of soda is collected. There are manufactures of importance, including sarapes (Mexican shawls), blankets, silver ware, flour, and glass. Cabinet and dye-woods are exported; also coffee, indigo, silk, gold, silver, and copper, chiefly to contiguous states and to Guatemala. Education is conducted in this state through a system including a state college, 53 girls' schools, and 28 for boys. Capital, Morelia (formerly Valladolid).

MICIPSA. See JUGURTHA, *ante*.

MICKIEWICZ, ADAM, 1798-1855; b. Poland; son of a Lithuanian nobleman, who pursued unsuccessfully the profession of an advocate. Mickiewicz received his elementary education at the schools in Nowogrodek and Minsk, and in his eighteenth year entered the university of Wilna, where his uncle was a professor. This university, for whose regency the poet Campbell was at one time a candidate, was then the most important educational institution in Russian Poland. There Mickiewicz became acquainted with the Polish revolutionist, Thomas Zan, and joined one of the patriotic secret societies which Zan was forming at Wilna. He gave most of his time, while at the university, to chemistry and poetry; his first published poem was addressed to Lelewel, university professor of history, and an ardent Polish patriot. After leaving Wilna, he became professor of classical literature in the college at Kowno, and it was during his residence there that two volumes of his poems were published, in 1822. Like Byron, Mickiewicz "woke up to find himself famous." The poems in these two volumes, though of varying degrees of merit, at once gave their author a reputation superior to that of any native poet. Many of them are founded on old Lithuanian superstitions and folk-songs. Two longer poems are contained in this collection: one of them, *Grazzna*, tells how a Lithuanian princess, for her husband's honor, dies, in his armor, upon the field. The other, *Dziady*, or *The Ancestors*, is a sort of autobiographical drama of marked power. Dmochowski, the translator of Homer, attacked him for his romanticism; but a new school of rising poets gathered round him, and became known as the "School of Mickiewicz." His popularity with his countrymen was raised to an unbounded pitch by his imprisonment by the Russian authorities on account of his connection with the Polish secret societies. His friend Zan was sentenced to perpetual imprisonment; and Mickiewicz was condemned to perpetual banishment in Russia. He resided at first in St. Petersburg, where he made the acquaintance of Pushkin and other literary men. His intimacy with Pushkin excited the suspicions of the Russian government, which forced him to remove to Odessa. He traveled through the Crimea, and records his impressions in the *Crimean Sonnets*. These sonnets became very popular, perhaps as being the first written in Polish; but they are inferior to most of his other work. He lived for a time in the household of prince Galitzin, the governor of Moscow; but was soon allowed to remove to St. Petersburg. There, in 1828, he published *Conrad Wallenrod*, which, though having a distinct political animus, escaped the Russian censorship. It relates the story of a Lithuanian, who rose, in the 14th c., to the mastership of the order of Teutonic knights, enemies of Lithuania, solely to have a better opportunity to destroy them. The intention of the poem was clear to the Poles, but was lost upon the Russians. The work was translated into Russian, and the emperor Nicholas complimented its author. It is said that he was even offered a post in the Russian service, but he declined, and requested to be given permission to visit Italy for his health. His request was granted, through the good offices of the Russian poet Zhukovsky, and he started for Italy, by way of Germany.

where he met Goethe. He took up his residence in Rome, where he became an intimate friend of James Fenimore Cooper. At Rome he heard of the Polish uprising of 1830, which the insurgents at Warsaw began by singing some parts of his *Ode to Youth*. He had gone as far as Posen, on his way to participate in the insurrection, when the news came that it was quelled. He went to Dresden, where he wrote a second part of *Dziady*, which appeared at Paris in 1832. This second part is likewise autobiographical, and gives an account of the poet's imprisonment at Wilna. He here represents himself in a scene which has been pronounced worthy of Goethe, as possessed by the devil, who is driven out from him by a priest. His last work of any length was a poem called *Pan Tadeusz*, or *Sir Thaddeus*, which appeared in 1834. It is entirely different in character and construction from the poet's other works. It deals with Lithuanian domestic life at the time of the approach of Napoleon's army in the campaign of 1812. Two years before the publication of *Pan Tadeusz* he wrote an absurd and eccentric work called *A Book of the Polish Nation and the Polish Pilgrimage*. In this book he attributes all the calamities which have fallen upon Poland to its toleration of Protestantism. Count Montalembert translated the book into French, on account of the warmth of its Roman Catholicism. He was married at Paris, in 1834, to a Polish lady named Celina Szymanowska, to whom some of his earlier verses are addressed. In 1839 he became professor of classical literature at Lausanne, and the next year he was called to the newly established chair of the Slavonic languages and literature in the college of France. His first lectures were successful; but he soon began to display a peculiar fanaticism. A Polish impostor, named Towianski, who had cured Mme. Mickiewicz by mesmerism in 1841, pretended to have revelations from the Virgin Mary, and these were interpreted by Mickiewicz. The latter finally ceased to allude to Slavonic literature at all in his lectures, but extolled Towianski as the new Messiah, and preached the worship of Napoleon Bonaparte. In 1844 the French government put a stop to the lectures, and ordered Towianski out of Paris. Mickiewicz's name, however, was not expunged from the list of professors. In 1848, after the February revolution, he went to Italy, in the vain hope of inducing the pope to do something in behalf of Poland. At the beginning of the Crimean war he presented the cause of Poland to Louis Napoleon, who sent him on a mission to the east in 1855; and he died at Constantinople. The best edition of his works was published at Paris in 1844, edited, under his own supervision, by Alexander Chodzke. *The Polish Pilgrimage* was translated into English by Lach Szyrma, and the *Wallenrod* by Leon Jablonski. A poetical version of the latter work, by Cattley, appeared at London in 1840. Mickiewicz stands at the head of the literature of his own country, and his position in the general literature of Europe is high. No poet of this century, except Byron, to whom he has often been compared, has left more original poetical work of undoubted intellectual power and imagination; but the prose writings of Mickiewicz are, for the most part, extravagant and feeble.

MICKLE, WILLIAM JULIUS, 1734-88, b. Scotland; son of a Presbyterian clergyman, who had been assistant to Dr. Watts, and had been one of the translators of Bayle's *Dictionary*. After his father's death Mickle entered the business of his uncle, an Edinburgh brewer, who finally admitted him as a partner. He had, however, little business aptitude, and in 1755 he went up to London to get a commission in the navy. His efforts in this direction were unsuccessful, but he made the acquaintance in London of the first lord Lyttelton, who advised him to continue those poetical studies to which he had already given much of his time. He secured employment for a time as a corrector for the Clarendon press in Oxford. This was about 1765, and between that year and 1770 he published a number of minor pieces, one of which, an elegiac ode called *Pollio*, attracted considerable attention. *Concubine*, a poem in the Spenserian manner, appeared in 1767, and again, with many alterations and additions, as *Sir Martyr*, some ten years later. In his *Letter to Dr. Harwood*, and his *Voltaire in the Shades*, he attacked Arianism and deism; and about the same time he wrote a tragedy called *The Siege of Marseilles*, which was refused by all the managers, and was not represented. He had long projected an English version of the *Lusiad* of Camoëns; and his translation of the first book of that work appeared in 1771. He now left Oxford, though still maintaining himself by his work as a corrector there, and removed to the country, where he continued his translation of Camoëns, which was completed in 1775. This translation, though severely criticised in England on account of its diffuseness and inexactness, secured for Mickle the honor of an election to the royal academy of Portugal, during his residence in that country, where he had gone in 1779 as secretary to gov. Johnstone; and prize-agent. He published, while in Portugal, a poem called *Almada Hill*. On his return to England he wrote a number of pieces in verse and prose; the last of his productions was a ballad called *Eskdale Braes*.

MICMACS, the name of a tribe of Indians belonging to the Algonquin family, and inhabiting the maritime provinces of the Dominion of Canada—New Brunswick, Nova Scotia, Cape Breton, and Prince Edward island—and Newfoundland. They were found by the Cabots in their voyage in 1497, and some of them were taken to England as specimens of the North American Indian race. They preferred the sea-coast, and were expert hunters and fishermen. At the time of the French settlement of Canada there were believed to be between 3,000 and 4,000 Micmacs in the lower provinces; and

missionaries worked among them with good results, particularly in gaining their permanent friendship for the French people. They fought and plundered the English persistently until 1760, after which date treaties were made with them, and reservations were set aside for them in New Brunswick. Efforts were made to direct their attention to agricultural pursuits, but these were unavailing. This tribe was peculiar in possessing a system of hieroglyphics of considerably more scope than existed among any other of the northern tribes. In 1873 there were 3,600 Micmaes, of whom 2,165 were in Nova Scotia and Cape Breton, 1,386 in New Brunswick, and 70 in Newfoundland.

MICRONESIA AND MELANESIA, names of Greek origin, meaning respectively "small islands" and "black islands." The first is used by most geographers to describe the Ladrone and Caroline islands, Marshall's islands, the Kingsmill group, Radack and Ralik chains, the Gilbert group, and many others of small size. All of these are in the n.w. part of Polynesia and e. of India, being all n. of the equator and between 130° and 180° e. long. The most important of the groups are described under the proper titles. The inhabitants of the various groups speak a tongue which is not similar to those used in other parts of Polynesia, but nearer akin to that of the Malays, to whom many of the islands bear a strong resemblance in color and features. Like most of the Polynesian groups, the islands are of coral or volcanic formation, scarcely rising above the level of the sea. Very little political or social connection exists between the different groups. The civilization and language of Micronesia were evidently derived in ancient times from contact with or descent from the Malays. The language is clear, flowing, and indicates that the inhabitants have at some time in the past been in a much higher state of civilization than when first visited by Europeans. Missionary stations have been established upon many of the islands and large numbers of the natives have been Christianized. On the other hand, the custom of ships, and especially whalers, of using the islands as a watering-station, has introduced drunkenness, debauchery, and disease to such an extent that the population is rapidly decreasing. The natives are distinguished from those of Australasia by their brown complexions and straight hair. In Melanesia, as the name implies, the inhabitants have the characteristics of the negro race. This name is given by some modern writers on geography to that part of Australasia lying s. of the equator and of Micronesia, and including Papua or New Guinea, New Ireland, Solomon's isles, the Louisiade group, New Hebrides, New Caledonia, and many small groups. The name is given altogether on the physiological grounds indicated, and is hardly well established as a geographical designation. See, for description, the articles under the names of the separate islands; also **POLYNESIA**, *ante*.

MICROSCOPIC ANIMALS. See **ANIMALCULE**, *ante*.

MICROTASIMETER, an instrument invented by Mr. Thomas A. Edison for the purpose of measuring very minute variations of pressure caused by the expansion or contraction of any given body, from whatever causes, heat, moisture, etc. A part of the apparatus is constructed upon the principle of the pyrometer, and when the expansion is caused by moisture, upon that of some forms of hygrometer. But the novel and unique part of the invention consists in the effect which the pressure of the expanding rod has upon the electric resistance of a piece of carbon placed in the circuit of a galvanic battery. A rod of vulcanite is used as the expanding element when it is desired to use the instrument to ascertain slight variations in the heat vibrations coming from any object, as the sun, or a gas, or electric light. This rod is adjusted in a strong frame kept at an equable temperature, so that no expansions or contractions shall exert any influence, except those which take place in the vulcanite rod itself. In the chamber which receives one end of this rod, or plate, there is placed under a follower, or slide, a piece of carbon, which becomes compressed with great force upon the expansion of the vulcanite rod. If radiant heat is to be measured, a large funnel is placed in front of the apparatus to gather the rays and throw them upon the rod or plate. When the rays increase in intensity the rod expands, compresses the button, and changes its conducting capacity, which at every moment is indicated by a galvanometer. The instrument has been used successfully to ascertain the variations in the radiation from the sun during an eclipse. It may also be used to note the variations taking place on a day when clouds are passing across the sun's disk, or when the transmission of his rays differs from increase or decrease of moisture. It may be used as a delicate hygrometer by substituting in place of the vulcanite rod a body containing gelatine, which expands under the influence of moisture.

MIDAS, a genus of platyrrhine monkeys belonging to the family hapalidæ, which also contains the marmosets. The common name for the different species is *tamarin*. It has the following characters: Muzzle short, facial angle 60°; forehead with an appearance of prominence, arising from the great angle of the upper edge of the orbits; upper incisors contiguous, under incisors of the same size as upper; nails like claws, excepting those of the thumbs behind; tail the same as in the marmoset, or jacchus of Geoffroy, and dental formula the same, except that in the latter the incisors are more irregular. There are seven species, the typical one being *midas rosalia*, the marakina or silky tamarin. This very beautiful little monkey is of a golden yellow color, varying to a redder tint, rather paler on the back and thighs. The long and silky hair about the head and neck forms a kind of mane, on account of which it has sometimes been called

the lion-monkey. Its beauty and gentleness render it a great pet; but it is delicate, and requires to be kept warm and dry. It is squirrel-like in its habits, a native of Guayana and the south of Brazil, from Rio Janeiro to cape Frio. There is a black and red variety, and one of a bright, shining red. The species should not be confounded with *M. leonina* of Humboldt, which is probably the smallest monkey known. It is brownish, and has a well-developed mane of that color which bristles up when the animal is angry so as to look like a little lion. It has a black face, a white mouth, and a tail black above and white below. It inhabits the plains bordering on the eastern slope of the Cordilleras, and is rare.

MIDDLE AGES (*ante*), the period in history from the 5th to the 15th c., or between the fall of the Roman empire and the reformation. Its beginning witnessed the successful invasion of southern Europe by the barbarians of the north. The Vandals were masters of Africa; Spain was divided between the Suevi and the Visigoths, the latter occupying also a large portion of Gaul; Italy was in the hands of the Ostrogoths; while a tribe of Germans under Clovis had invaded and conquered France. The comparatively new Byzantine or eastern empire had already begun to decline, through the weakness and licentiousness of its rulers. Paganism had been overthrown, and Christianity was gradually penetrating into the unknown wilderness of northern and central Europe. What were known as the "dark ages," the first centuries of this period, had commenced the destruction of the old civilization which had been propagated from Phenicia, and had culminated in the ascendancy of Greece and Rome. Western Europe, including even Italy, "lay prostrate at the feet of barbarian conquerors, and was a howling waste, in which the law of the strongest only prevailed."—The middle ages closed with the advent of Luther, Melancthon, and Calvin, and the great battle for the freedom of the human conscience; with the discovery of America by Columbus; and with the invention of the art of printing by Guttenberg, Faust, and Schöffer, and its application to the printing of the Bible at Mayence. In the beginning of this period the countries which we have named were swayed by incidental leaders and potentates, and given up a prey to a soldiery who lived by depredation and rapine. Protection for life or property there was none; and even the savage chieftains of that ignorant age soon perceived the necessity for some authoritative restraint. Out of this necessity grew the feudal system, in France, Germany, Aragon, a large part of Italy, England, and Scotland, probably occasioned in part by the gradual destruction of slavery, and in part to the fall of the Roman empire, for so long a time the seat of government of the world. It was natural that with Rome fallen, Europe should become divided among petty barons and princes, whose authority could only subsist so long as they were enabled to sustain it by force of arms. Under these circumstances, each leader fortified his possessions; and it was then that many of the castles and fortresses were erected, whose ruins are to-day the admiration of tourists in Europe. Every man who was capable of bearing arms was a soldier; and there was no such thing as a laboring class, since the hinds and villains who did the drudgery under the feudal system were held to be but little above the brutes whose care was one of their chief duties. Of this period it has been concisely said, "the peculiar general character of feudalism is the dismemberment of the people and of power into a number of petty nations and petty sovereigns; the absence of any central government." The foundation of this system consisted in the allotment of land in fee (Latin *feudum*), with the powers of bequest and inheritance, to the petty chieftains, who on their part agreed to give their services and those of their vassals, whenever called upon, either to repel invasion or to make incursions into the territory of others. Later, these barons, counts, and others, were permitted to take surnames, usually from the names of their castles or villages, and to adopt armorial bearings. This whole movement was a slow formation of the royal and noble elements of society as organized in future centuries.

With feudalism intervened another element of specific influence—the introduction of monasticism and the monastic orders throughout Europe; for the foundation of monasteries in Europe proves to have been a necessity to the progress of civilization. They served as a nucleus around which settlements were formed, the settlements growing into towns, the towns into cities. The prelates and abbots were feudal nobles, equally with the barons and counts. Their tenure of land was the same; and though they were not absolutely required to perform military service, there were many fighting men among them who did so, while none were exempt from furnishing their quota of armed vassals. And as the church grew strong in Rome, some reflection of her strength was felt wherever her servants were; until it was often the case that the lords and barons were made to experience a power in the hands of the abbots that they themselves did not possess. While the monastic system had undeniable and great evils, the teachings of the monks led generally toward a respectable, honest, and humane mode of life; and on such teachings the arts of peace and culture began to take root and flourish amid disorder and depredation, such as had not been known before since the foundation of Rome.

A new feature was after a time introduced into the feudal system by the occasional calling together of an assembly of the feudal lords by the sovereign—more, it is true, with the view of sustaining amicable relations with them than for any purpose of the division either of power or responsibility. At first these assemblies were merely festive

gatherings; but after a time they assumed the form of advisory, and at last of deliberative meetings, when all legislative enactments were considered and debated. There were even in some of these gatherings traces of representative legislation; they were the first faint beginnings of the constitutional monarchy of a later age. The convocation of the French states-general, in 1302, was the first positive departure in this direction. The feudal system was now gradually discarded. The petty feuds of the early part of the middle ages became the great wars of their latter centuries, when the simple feudal compact could not supply such armies as were required. The tendency towards consolidation began now to be felt, just as that of displacement and separation had held sway after the fall of Rome. Kingdoms grew into enormous possessions and great wealth. Mercenary troops were employed in war, hired from monarchs or states not engaged in the conflict; and thus the idea of standing armies ready for emergencies grew into being. In fact, centralization of power began to be the law under which kings and emperors were conducting their policy, while representation was being made the lever with which the people were seeking to gain greater freedom of conscience and of person. This general condition spread through England and Scotland, France, Germany, Italy, and Spain. In Italy, Lombardy, and Venice arose republican governments; and the anomaly of great cities self-governed appears as one of the extraordinary features of the middle ages. Venice grew great in the arts and in commerce, and the marvelous promise of the period was broken only by intestine quarrels and the factious fights of the Guelphs and Ghibellines, and of other powerful Italian families, which, however, resulted in the destruction of the franchises of the people, and the foundation of petty principalities on the ruins of the liberty which had been achieved by the free cities. The history of Florence, Pisa, Genoa, and Venice, during a major part of the middle ages, is that of all Italy after the period when the northern portion of that country was under the control of the German emperors. Their commerce covered the Mediterranean, the Black sea, and the Adriatic, and extended into the far east by caravans. In the darkest and most barbarous period, Venice conducted an extensive traffic both with the Greek and Saracen regions of the Levant. The crusades, which swept over Europe with an unexampled wave of enthusiasm, enriched and aggrandized Venice more perhaps than any other city. Her splendor, however, may be dated from the capture of Constantinople by the Latins in 1204, by an enterprise which, originally intended for the recovery of Jerusalem, was diverted to this more profitable adventure, in which not only the Venetian nations but the French were engaged. In the meantime wars assumed a scientific character, gunpowder was introduced into Europe, probably through the Saracens, and artillery began to be used in the early part of the 14th century. But incessant revolutions and family feuds tore the Italian republics to pieces, until Florence, the last of them, succumbed under the domination of Lorenzo de' Medici.

Charlemagne, king of the Franks and emperor of the Romans (768-814 A.D.), after his conquest of the Saxons and the Lombards, was invited into Spain to interpose in the wars of the Arabs and Moors in that country, and seized and added to his dominions all that territory lying between the Pyrenees and the Ebro. The Saracens conquered Spain in 711 A.D., and left behind them monuments whose ruins attest to this day the wonderful progress of oriental art under the caliphs, and give evidence of the spirit and enterprise which characterized the Arabs from the time of Mohammed to that of their expulsion from Spain (1492), when they had erected new empires in three-quarters of the globe.

The beginning of the 13th c. had seen an eruption of barbarians from Chinese Tartary, extending across all Asia and as far as the Euxine, which was not even paralleled by the invasion of Spain by the Saracens, or that of Italy by the savages of the north. Reducing the caliphate of Bagdad, they subverted the governments of Persia, Syria, and Iconium. To them it was owing that the Turks of the latter country, under Othman, penetrated through Asia Minor into Europe, from whence not all the western powers in six centuries have dislodged them.

The power of the church in the middle ages began in the conversion of Constantine, emperor of the west, who was baptized shortly before his death, 337 A.D. It was gained by slow steps, beginning with the accumulation of territory, and being extended by assumption of the authority to declare excommunication and interdict. By gaining vast wealth, and by playing upon the fears of weak princes, the bishops gradually encroached upon the rights and privileges of the highest potentates of Europe, until the pontifical authority of Rome controlled nearly every king and emperor from the Adriatic to the North sea. It was this influence that organized the crusades, and that occasioned half the wars that convulsed Europe during a period of ten centuries, yet without which, at this peculiar age of the world, civilization, the arts, letters, and commerce alike would have languished or remained unborn. The missionary enterprise of the church, after the discovery of America, populated the western continent, and opened an entire hemisphere to new empire and a new civilization. Devotion to the church prompted the genius of Raphael and Michael Angelo, and gave form to the wonderful conceptions which resulted in the spread of Gothic architecture, the most original, the most comprehensive, and the most symbolic that the world ever saw. It has already been shown how the ceaseless energy and enterprise of the church was the foundation of the advance from barbarism to civilization which characterized central and northern Europe between

the 5th and the 12th century. At no other period in the world's history has there been such an awakening out of darkness and incapacity into light and power as that which followed the culmination of the strength of the church. Yet it was in the period immediately succeeding the reformation—the first and fiercest blow struck at the influence and prerogative of the church—that this awakening—*renaissance*—reached its height. When the middle ages closed, a Protestant queen was on the throne of England, then in the zenith of power and splendor. Calvin, Luther, and Melancthon were defying the pope and making all Europe ring with tones deeper and further reaching than even those of the Vatican. The schools of art of Antwerp, Venice, Rome, and Siena had revived the genius of the Augustan age, and the newly-discovered power of the press was beginning that vast dispensation of intelligence which marks the modern period. Meanwhile, Cabot, Vespucci, and Vasco de Gama were sailing forth to discover new continents; Cortes and Pizarro were destroying the hitherto unknown Aztec civilization; and but a brief time elapsed before the pilgrim fathers planted the first seeds of freedom in America, leading in the new epoch of wars, conquest, legislation, disintegration, and rebuilding, which we call modern history.

MIDDLE BASS ISLAND. See PUT-IN-BAY ISLANDS.

MIDDLEBOROUGH, a t. in s.e. Massachusetts, on the Namasket river, the junction of several lines of the Old Colony railroad—the Cape Cod branch, Boston to Provincetown, the Middleborough, Taunton and Providence, and the Old Colony and Newport. It is one of the most ancient towns in Plymouth co., and a summer resort of great attractiveness, on account of the picturesque beauty of its scenery and numerous features of historic interest within the town limits. Previous to the incorporation of the town of Lakeville, which was taken from its territory, it was the largest town in the state, and now numbers more than 60 sq.m.; pop. '80, 5,237. It lies on both sides of the river, which runs in a winding course from large lakes (in the adjoining town) 5 m. away, with three falls furnishing valuable water-power, emptying into Taunton river. Game and fish abound in the lakes and their vicinity, and a small excursion steamer plies between the pic-nic grounds on the lakes to a pier at the upper falls. It comprises the thriving villages (all with churches, post-offices, and manufactures) of North Middleborough (Titicut), South Middleborough, The Rock, East Middleborough (Eddyville), a number of smaller villages and neighborhoods, and Middleborough Four Corners, the central portion, which is designated as Middleborough. It has several public halls, an elegant town house containing a commodious hall, a room for the district court, the public library, and a bank, besides the town offices, erected at a cost of \$50,000, standing on an eminence commanding a view of many points of interest, among them Muttcock Hill cemetery, about a mile from the Corners, a beautiful spot, where rest some of the founders of the old colony. In this vicinity is Oliver's walks, the site of the mansion of judge Oliver, who in the revolution espoused the tory cause and went to England. It was the seat of Peirce academy (Baptist), founded 1808, with a classical department, a valuable cabinet, and an average attendance of 300 pupils, including many from the southern states. During the rebellion its popularity diminished, and it has since been discontinued. The town has excellent public schools, is lighted by gas, and is laid out regularly, with numerous maples, elms, and other ornamental trees shading the streets and highways, which are celebrated for their beautiful drives. It contains the Bay State straw-works, employing a large number of girls in its extensive factories and at their homes in the adjoining towns and villages, 5 shoe-factories, 3 churches, 2 newspapers (1 monthly), 2 printing-offices, a hotel, the Star mills (woolen), and manufactories of lumber, shovels, needles, trunks, boxes, varnish, marble-works, and a variety of stores. It is a center of an important trade in horses, which are brought from Vermont and Canada. It is 12 m. from Plymouth, 10 m. from Taunton, 20 m. from New Bedford, 20 m. from Fall River, and 34 m. from Boston.

MIDDLEBURY, a t. in central Vermont, delightfully situated on Otter creek, a small stream flowing n.w. and emptying into lake Champlain; in a mountainous region, presenting very attractive scenery; pop. '80, 2,993. The Central Vermont railroad passes through it. It is 33 m. n.w. of Rutland, 35 m. s. of Burlington, and 33 m. s.w. of Montpelier. It has valuable water-power. It is the seat of Middlebury college, and has excellent public schools and a public library. It contains a national bank, 2 newspapers, 6 churches, 3 hotels, and a well-organized fire department. It has six quarries, where marble of various colors is quarried and exported, and it has iron-foundries and flour-mills; other industries are the manufacture of sashes, doors and blinds, cotton, wool, paper, and leather.

MIDDLEBURY COLLEGE, in Middlebury, Vt., opened in 1800, under Congregational control, has three buildings valued at \$100,000, an interest-bearing endowment of \$180,000, and an income of \$13,000 annually. There are 11 instructors, and a library of 12,000 volumes. President (1881), Rev. Cyrus Hamlin, D.D., formerly a well-known missionary in Turkey.

MIDDLE C, in music, receives its name from its position on the general scale. It is the note which is a fifth above the F or bass clef, and a fifth below the G or treble

clef. The C clef always represents the note termed middle C, and the lines and spaces above or below are designated accordingly.

MIDDLE PARK, one of the numerous fertile valleys which extend over broad distances in Colorado, being inclosed by spurs of the Rocky mountains, and remarkable for the variety and picturesque character of their scenery. It is in Summit co., about 3,000 square miles in extent, being 65 m. in length by 45 in width, and is 7,500 ft. above the level of the sea. It lies directly s. of North park, from which it is separated by one of the cross ranges of the great mountain chain. On its eastern side the Snow-range or continental divide sweeps around it, and it is completely surrounded by lofty mountains, among which Long's peak, Gray's peak, and Mt. Lincoln, from 13,000 to 14,000 ft. high, stand prominent. The head-waters of Grand river and the Blue river water this territory, both flowing westward to the Colorado. A portion of the park is heavily wooded, but much of it presents an expanse of grass-grown meadows, dotted with wild-flowers. Wild game is plentiful, and includes bears, elk, mountain-sheep, deer, and antelopes, and the waters are filled with fish. The climate is genial and the temperature equable. The most important feature of the park for tourists is the hot sulphur springs, 45 m. from Georgetown and 60 m. from Central City. These springs are found near a branch of the Grand river, about 12 m. from the southern termination of the park. Their waters are said to exercise a curative influence in cases of cutaneous disease, rheumatism, and neuralgia. About these springs a settlement for the accommodation of invalids is rapidly spreading into a considerable town. Grand lake, a handsome sheet of water, offering excellent trout and other fishing, is 27 m. from the Hot Springs, and is a point much frequented by excursion parties of tourists and convalescents.

MIDDLESEX, a co. in s. Connecticut, intersected from n. to s.e. by the navigable Connecticut river, emptying into Long Island sound, which forms its s. boundary; 400 sq.m.; pop. '80, 35,587—29,611 of American birth, 387 colored. It is drained by the Hammonasset river in the s., and the Salmon river, a branch of the Connecticut, both furnishing water power. It is intersected by the Connecticut Valley railroad, the Shore Line (N. Y., N. H. and Hartford), and the Boston and New York Air Line. Its surface is hilly and well wooded, and celebrated for the beauty of its scenery, the picturesque bluffs and terraced banks of the river. Its soil is not in general very fertile, except in the celebrated Connecticut valley: yet, well fertilized, it produces grain, garden produce, tobacco, a variety of orchard products, and those of the New England states in general. Among its variety of manufactures are Victor sewing-machines, britania ware, tape, webbing, pumps, sleigh and hand bells, augurs and gimlets, ivory and bone goods, emery wheels, and engine-governors, etc. Granite, cobalt, and freestone are found, and valuable quarries of the celebrated Portland sandstone, which is largely exported for building-material. Capitals, Middletown and Haddam.

MIDDLESEX, a co. in e. Massachusetts, having the state line of New Hampshire for its n. boundary, drained by the Merrimac and Nashua rivers in the n., and the Charles, Concord, Sudbury, and Assabet rivers in other sections; 800 sq.m.; pop. '80, 317,951—234,665 of whom are of American birth, and 2,675 colored. It is intersected by a net-work of railroads; the Boston and Albany, branches of the Boston, Lowell and Nashua, the Boston, Clinton, Fitchburg and New Bedford, and the Boston and Maine. Its surface is hilly, and groves of oak, white ash, beech, elm, hickory, and other trees grow on the hills along the river banks, which are celebrated for their quiet beauty. Its soil is very fertile, producing large crops of corn, potatoes, and other garden and orchard produce. Horses, cattle, sheep, and swine are raised. The immense water power furnishes facilities for extensive manufactures, which command the attention of the inhabitants, somewhat to the exclusion of agriculture. They consist of a large variety, among them cotton and woolen goods, straw goods, boots and shoes, leather, carpets, and watches (at Waltham). The value of the manufacture of boots and shoes for one year is estimated at over \$16,000,000, and of cotton goods at over \$12,000,000, the reported annual value of all manufactures for one year is \$113,147,270. The county includes the cities of Lowell and Cambridge (the seat of Harvard university), and the towns of Medford (the seat of Tufts college), Lexington, and Concord (the home of Emerson, and the seat of the Concord school of philosophy). Capitals, Lowell and Cambridge.

MIDDLESEX, a co. in e. New Jersey, having Staten Island sound and Raritan bay for part of its e. boundary, drained by the Raritan river, navigable to its county seat, flowing through it and forming its n.w. border, and emptying into the bay of the same name; also the South and Millstone rivers; 340 sq.m.; pop. '80, 52,286—42,162 of American birth, 1628 colored. Its surface in the n. portion is hilly, but in the s. is generally level. It is a fine agricultural region, the soil being in some portions light and sandy, and in all parts fertile. Its products include corn, wheat, and dairy products, and fruit in abundance. Cattle, sheep, and swine are raised. Sandstone is found, fire-clay or kaolin, and molding-sand. It is intersected by the railroad of the united companies of New Jersey, the Lehigh Valley railroad, and the New York division of the Pennsylvania railroad. The Millstone and New Brunswick railroad and the Delaware and Raritan canal terminate at its county seat, and a portion of it is traversed by the Freehold and Jamesburg agricultural railroad. It has extensive manufactures of India-rubber goods, carpets,

hosiery, cork, paper-hangings, metal screws, white-ware, drain pipes, freight and passenger cars, harness, shoes, etc. Across the sound, 1 m. in width, is Staten Island 13 m. long, 5 m. s.w. of the city of New York. The harbors of the county are easily accessible to vessels, and have 4 ship-yards. A large number of steamboats and steam ferry-boats ply between its ports and neighboring cities. Seat of justice, New Brunswick.

MIDDLESEX, a co. in e. Virginia, having the Chesapeake bay for its s.e. boundary, the Rappahannock river for its n., and the Piankatauk river for its s. border; 150 sq.m.; pop. '80, 6,252—6,242 of American birth, 3,634 colored. Its surface consists mostly of level plains with low marshes in some sections. Its soil is a sandy loam, producing wheat, oats, corn, and dairy products. Cattle, sheep, and swine are raised, and oysters are abundant. Seat of justice, Saluda.

MIDDLESEX, a co. in s.w. Ontario, drained by the Thames river, forming part of its s.w. boundary; about 1228 sq.m.; pop. '71, 82,595. It is intersected by the Great Western railway, the branch railroad to Sarnia, the London and Port Stanley railway, the Grand Trunk, and a branch from St. Mary's. It is a fine agricultural region, and has white sulphur springs in the e. portion. It has 3 ridings. It is also supplied with water power by the Aux Sables and Sydenham rivers; and has extensive iron-foundries, machine shops, chemical works, breweries, and manufactories of boots and shoes, soap, candles, musical instruments, carriages, cabinet-making establishments, and has a large trade in grain and country produce. Seat of justice, London.

MIDDLE THIBET. See LADAKH, *ante*.

MIDDLETON, ARTHUR, 1685-1745 about, was the son of Edward Livingston, and an eminent member of the South Carolina colony. The proprietary system, which existed under the royal charter, was obnoxious to the colonists, and in 1719, under the lead of Middleton, they succeeded in placing themselves under the immediate protection of the crown. He had previously (1712) been made a member of the council; and in 1725 succeeded Nicholson as governor, which position he held for six years, and for the remainder of his life was a member of the royal council.

MIDDLETON, ARTHUR, 1743-48, b. S. C.; educated at Harrow and Westminster, and at Cambridge. On his return to this country he took a prominent part in the affairs of his native state, where his family possessed large estates and exerted a great influence. His father, Henry Middleton, had been president of congress in 1775, and he himself, after serving with distinction on the first committee of safety, was sent by his native state in 1776 to congress, where he signed the declaration of independence. He remained in congress till 1777; and two years later, after refusing the governorship of South Carolina, he joined in the defense of Charleston. The British troops pillaged his plantation, one of the most valuable in the state; and in 1780 he was made prisoner at the capture of Charleston. His plantation was confiscated, and he was confined first at St. Augustine, and afterwards in the Jersey prison ship till near the close of 1780, when he was exchanged. He was again returned to congress, where he remained till the war was closed. He was afterwards a member of the senate of his native state. His writings are confined to a number of essays on political subjects, published under the pseudonym of "Andrew Marvell." To his skill as a stenographer we are indebted for a report of many debates in which he took part, and whose records would otherwise have been lost to us.

MIDDLETON, EDWARD, 1640-1700 about, the first of a family well known in the political history of this country, and especially of South Carolina. He was born in Twickenham, England, from which place he emigrated to this country and took up his residence in South Carolina, being one of the very earliest settlers. Here he took an active part in the affairs of the young colony and was useful not only from his great wealth but also from his political sagacity. He was of very liberal tendencies, and seems to have foreseen the separation of the colonies from the mother country. In 1680, ten years after the settlement of the colony, he was a member of the council under the lord-proprietors.

MIDDLETON, HENRY, 1771-1846, was the son of Arthur Middleton, signer of the Declaration of Independence, and was b. in Charleston, S. C. He was a member of the state legislature 1801-10; was then elected governor of the state and in 1815 was elected to congress, where he served two terms. In 1820 he was appointed U. S. minister to Russia, in which capacity he served for about ten years and on his return to this country retired from public life.

MIDDLETON, HENRY, b. not far from 1700; son of gov. Arthur Middleton, and like all his family, took much interest in the political affairs of the state. He is chiefly known as president of the congress of 1775, to which he was sent as a delegate by the colonial convention of South Carolina; and notwithstanding his great age at the time was an active and efficient supporter of the revolutionary measures.

MIDDLETON, THOMAS, d. 1626, b. England; lived in the reigns of Elizabeth, James I., and Charles I. Very little is known of his life beyond the fact that he was made chronologer to the city of London in 1620. His earliest known piece belongs to 1602 and his latest, to 1626. The best of his numerous plays are *A Mad World my Masters*, and *The Roaring Girl*. The latter is interesting from the picture it contains of the Lon-

don life of that day. Its heroine was an actual person, the notorious Moll Cutpurse, who also figures in the *Amends for Ladies* of Field, a contemporary of Middleton. Another play of Middleton's, *The Witch*, is supposed to have furnished or suggested to Shakespeare, some of the incantation scenes of *Macbeth*. A tragedy founded upon the story of Bianca Capello is distinguished by a forcible action. The comedy, *A Trick to Catch the Old One*, is full of spirit and humor, as are most of Middleton's comedies. His language is often coarse, and his characters repulsive; he has little skill in the construction of a plot, but his works are full of life. He displays a richness of humor in his comedy, and an occasional power of imagination in his tragedy, which entitle him to a high rank among the Elizabethan dramatists of the second class. He worked with Rowley on the composition of *The Fair Quarrel*, *The Spanish Gipsy* and *The Changeling*, with Rowley and Massinger on *The Old Law*, and with Fletcher and Jonson wrote *The Widow*, printed in Dodsley's *Plays*.

MIDDLETON, THOMAS FANSHAW, D.D., 1769-1822, b. England; educated at Christ's hospital, and Cambridge, and ordained in the English church in 1792. He was appointed to the curacy of Gainsborough in Lincolnshire, where for a time he edited a periodical called the *Country Spectator*. In 1794 he acted as tutor to the sons of the archdeacon of Lincoln, Dr. John Prettyman, who presented him in 1795, to the living of Tansor, in Northamptonshire, whence he was transferred in 1799, to St. Peter's, Mancroft. In 1802 he became rector of Bytham, in Lincolnshire, and began his most important book, a treatise on the *Doctrine of the Greek Article*, which appeared in 1808. In 1811 he became vicar of St. Pancras, Middlesex, and in 1814 was consecrated first bishop of Calcutta. In this capacity he did much to promote the advancement of Christianity and education. He founded the bishop's college at Calcutta in 1820, to educate missionaries and clergymen for the English Asiatic possessions, and he established a consistory court at the same place. In his book on the Greek article, after laying down the rules to which it is subject, and applying them to New Testament interpretation he attempts the discussion of passages from which the divinity of Christ may be argued for or against, according to the special force of the Greek article in that particular connection. The work created considerable theological discussion, and was opposed by a number of Unitarian writers.

MIDDLETOWN (*ante*), a city in s. Connecticut, incorporated 1874; on the Connecticut Valley railroad and the Boston and New York Air Line, at the terminus of a branch of the New York, New Haven and Hartford railroad; pop. '80, 11,731. It is a port of entry, admitting to the wharves vessels drawing 9 ft. of water. It is a stopping place for the New York and Hartford steamboats, daily line. It is built on rising ground, commanding a fine view of charming environs, and is situated on the w. bank of the Connecticut river, 31 m. above its mouth, directly s. of one of its small branches, and is one of the county seats of Middlesex county. It is regularly laid out, with wide streets at right angles; buildings principally of brick, and residences, particularly on the hills, having spacious grounds, tastefully ornamented. Main street, in the mercantile quarter, is a wide and level thoroughfare, and High street contains the most fashionable residences. The streets are well shaded by trees. It contains a court-house, built of Portland freestone; 6 hotels, 7 banks—4 national—with an aggregate capital of \$969,300, and 3 institutions for savings, having \$8,000,000 of deposits. It has a custom-house, 5 newspapers, 15 churches, and a public library. It is the seat of Berkeley divinity school (Episcopal), established in 1854, having a library of 14,000 vols.; also of the Wesleyan university (Methodist), organized 1831, having a library of 25,000 vols., a valuable cabinet, and fine telescope; and has excellent public schools. In the suburbs are the commodious buildings of the state general hospital for the insane, and it has also the state industrial school for girls. In the vicinity are valuable mineral deposits: feldspar, columbite (very rare), gold, silver, and an abandoned lead-mine opened in revolutionary times. It is 15 m. s. of Hartford and 24 m. n.e. of New Haven, at an equal distance from New York and Boston. It is the center of an important trade; has some ship-building, and various manufactures—among them britannia ware, silver-plated ware, cotton goods, sewing-machines, rules, chisels, guns, screws, etc. Across the river is the t. of Portland, connected with it by an iron railway bridge of the Boston and New York Air Line.

MIDDLETOWN, a village in Orange co., N. Y., the terminus of the New Jersey Midland railroad, at the junction of the Erie railroad with the New York and Oswego Midland railroad; pop. '70, 6,049. It is a part of the township of Wallkill, and is on the Wallkill river, built on the long, sloping sides of low hills. It is 24 m. w. of Newburg, and 66 m. n.w. of New York by rail. The Shawangunk mountains, a portion of the Appalachian system, lie at the w. of it, and on the e. are the highlands of the Hudson. It has 9 churches, 2 national banks, a savings-bank, several public halls (1 masonic), a public library and reading-room, a union school, Wallkill academy, and several private schools; and it is the seat of the state asylum for the insane (homeopathic) established 1874. It has an opera-house, two hotels, and 4 newspapers. Its streets are wide, ornamented with shade-trees, well sewered, and lighted by gas. It has an efficient fire department and police force. Its water-works conduct its water supply 2 m. from lake Monhagan, the reservoir containing 80 acres, situated nearly 200 ft. above the level of the

village. In the s.w. portion is Hillside cemetery, a beautiful spot containing 50 acres, well laid out and carefully tended. Its leading industries are the manufacture of wool hats, blankets, saws, files, carpet-bags, furnaces, agricultural implements, lawn mowers, gloves, patent medicines, etc., and it is the center of an important country trade in garden produce and stock.

MIDDLETOWN, a t. in Dauphin co., Pennsylvania, 9 m. s.e. of Harrisburg, at the mouth of Swatara creek, on the e. side of the Susquehanna, and the Pennsylvania railroad and Union canal, and connected by ferry with the Middletown ferry station on the Northern Central railroad; pop. '70, 2,980. It has a number of churches, newspapers, a bank, and an orphan asylum. There are grist, planing, and saw mills, car and machine shops, and a foundry.

MIDLAND, a co. in central Michigan, intersected by the Flint and Père Marquette railroad; 550 sq.m.; pop. '80, 6,894—5,158 of American birth, 26 colored. It is drained by the Tittibawassee river, formed by the union of the Chippewa, Pine, and Tobacco rivers within its limits. Its surface is generally level prairie, largely covered with building timber, with groves of sugar maple, and pine growing on the low hills. Lumber is one of the chief commodities, and is largely exported. Its soil is fertile in some sections, producing oats, Indian corn, potatoes, wheat, rye, and the products of the dairy. Its soil and climate are favorable for stock-raising. It has manufactures of lumber, salt, and flour. Capital, Midland.

MIDLOTHIAN. See **EDINBURGHSHIRE**, *ante*.

MIDNAPPOOR, a district in s.w. Bengal, forming part of the province of Orissa; 4,015 sq.m.; pop. about 500,000. It is traversed by the Cosai river and many smaller streams. The soil is rich and produces in abundance rice, sugar, tobacco, cotton, and indigo; but much of the district is jungle and the atmosphere is exceedingly unhealthy. Tigers and poisonous reptiles infest the district, and the annual loss of life from this cause is sometimes very large. The inhabitants are in religion partly Buddhists and in part Mohammedans. Midnapoor and Jellasure are the main towns; the former is the capital, and is 65 m. s.w. of Calcutta.

MIDSHIPMAN (*ante*), in the U. S. navy, is the ninth and lowest grade of officers in the line of promotion. The appointments for service are made from the cadet-graduates of the Annapolis naval academy, where the course of study lasts six years, and includes a very thorough training in theoretical and practical navigation, mathematics, the natural sciences, modern languages, etc. Cadets are appointed to the academy on the recommendation of the members of congress for the districts in which they reside, and on conditions similar to those governing the appointments to West Point. Since 1865 ten cadets are also appointed from among the apprentices of the school ships after a competitive examination. After passing the examination of the academy, the midshipmen receive their warrants and enter upon actual service, with the pay of \$800 per annum. Promotion to the rank of ensign follows after two years' actual sea duty, and a strict examination before a board of three captains and two commanders.

MIE' RIS, **FRANS**, the elder, 1635-81; b. Holland; studied under Abraham Toorne Vliet, a celebrated Dutch designer, and afterwards under Gerard Dow, who called him the prince of his scholars. The subject which Mieris most frequently treats is domestic life. He was a brilliant colorist, and superior to Dow himself in his treatment of stuffs and textures, particularly rich materials like velvet and satin. His pictures are rare and command a high price. His portrait of the wife of Cornelius Plaats is considered one of his finest works. The Florence gallery has many of his pictures. His son, **WILLIAM**, 1662-1747, was also an artist. He had attained a considerable degree of skill under the direction of his father, upon whose death he turned his attention to making studies from nature. His earlier works portray domestic scenes, in the manner of his father; afterwards he took up historical and romantic subjects. His painting of Rinaldo sleeping in the lap of Armida, surrounded by the loves and graces, was so successful that he treated the same subject three times afterwards. He also painted in landscape and modeled in clay with considerable skill. His landscapes are not always natural, and in his historical compositions his costumes are often inappropriate. He is surpassed by his father in elaboration and exactness, but surpasses him in the brilliancy of his coloring and the representation of natural objects. **FRANCIS MIERIS**, sometimes called Francis the younger, 1689-1763, was the son of William, with whom he studied art. But he never attained high rank as an artist, his efforts in that direction being mostly confined to copying the pictures of his father and grandfather. His tastes were for historical and antiquarian researches.

MIEROSLAWSKI, **LUDWIK**, 1814-78; b. France; son of a Polish officer in the service of France, his mother being French. He received his education at the military school in Kalisz, and when only 16 years of age united himself with the Polish insurgents. This was at the beginning of the revolution of 1830, and Mieroslawski distinguished himself greatly, and was made an officer, serving through the campaigns of 1831 and until the fall of Warsaw, when he settled in Paris. Here he devoted himself to historical and other writing, publishing a number of books in Polish and French, particularly a military history of the revolution in Poland. He became the central figure

of the club of Polish refugees in Paris, and, in 1846, took the command of another revolutionary movement, which failed, and resulted in his imprisonment and sentence to death. The outbreak of the general revolutionary movement of 1848 on the continent saved him from this fate, and he repaired at once to Poland on being released from prison in March of that year, and fought in a number of well contested engagements, gaining a complete victory at Miloslaw. But the insurgents were at length subdued, and Mieroslawski resigned his command. In the following year he was in command of the revolutionary movement in Sicily, and was wounded at Catania. He was next heard of in Baden fighting the Prussians, but here also he was unsuccessful, and after the capture of the fortress of Rastadt, in which he had taken refuge, he once more retired to Paris. The Polish insurrection of 1863 brought him again to the front, but only to be defeated in the battle of Raszewo, after which he retired finally to France, and devoted the remainder of his life to political writing.

MIFFLIN, a co. in central Pennsylvania, drained by the Juniata river and its branches, and intersected by the Pennsylvania railroad and two local branches, and also by the Pennsylvania canal; 375 sq.m.; pop. '80, 19,577—19,090 of American birth. There are many hills, but in the valleys the soil is very fertile; wheat, oats, Indian corn, and potatoes being the staples. There are factories of woolen goods, axes, tools, clothing, harness, and saddles, 6 flour mills, and 11 tanneries. Co. seat, Lewiston.

MIFFLIN, THOMAS, 1744—1800; b. Philadelphia, of Quaker parentage. He received his education in the university of Pennsylvania, and in a business establishment. In 1765 he visited Europe, and on his return joined his brother in a copartnership, and rapidly attained to position and influence. In 1772 and the following year he was a member of the legislature, and in 1774 a delegate to the first congress. He was commissioned a maj. in one of the first regiments raised in Philadelphia for the war, and was aid-de-camp to gen. Washington, with the rank of col. He was rapidly promoted, becoming in succession quartermaster-gen. and adj.gen.; and commissioned brig.gen. May 16, 1776, and maj.gen. Feb. 19, 1777. During the retreat from Long Island he commanded the covering party, and was afterwards prominent in going through the country arousing the patriotism of the people by stirring appeals; he was enabled by this means to bring essential aid to gen. Washington before the battles of Trenton and Princeton. He became dissatisfied after the New Jersey campaign, and engaged in opposition to the commander-in-chief, being a prominent member of the movement known as the "Conway cabal." He was elected a delegate to congress in 1782, and became its president the following year. He was a member and speaker of the Pennsylvania state legislature in 1785, and a delegate to the constitutional convention of 1787. He held various state positions until 1791, when he was made governor, holding the office until 1800. He contributed greatly to the suppression of the whisky insurrection in 1794.

MIGNE, JACQUES PAUL, b. in St. Flour, Cantal, in 1800; educated at Orléans. In 1824 he became a priest and performed the functions of his office till 1833, when a pamphlet published by him, entitled *De la Liberté, par un Prêtre*, brought upon him the censure of the bishop of Orléans, who forbid its publication. Migne quit his pastorate, went to Paris, and the same year established *L'Univers Religieux*, designed to harmonize the church with the free spirit of civil government; but pleasing neither extreme his journalistic venture was assumed by others, and he commenced the publication of a collection of works entitled *Cours Complets de Théologie et d'Écriture Sainte*, and founded a publishing house on a large scale called *D'Imprimerie Catholique*, designed to furnish standard religious works at a low price. He established the daily *Vérité*, which in 1856 became the *Courrier de Paris*. In 1861 he founded the weekly *Vérité*, a religious journal. The publishing house was burned in 1868: 3,044,152 francs insurance received indicates the extent to which the establishment had grown. It was immediately rebuilt, Migne remaining its chief director. The *Cours Complet*, etc., first mentioned, finally grew into an immense series of volumes of standard authors under the general head of *Bibliothèque Universelle du Clergé et des Laïques Instruits*. The different parts of this series have had an immense sale.

MIKADO. This is the popular title of the emperor of Japan, though in official documents the term *tenno* (heavenly king) or *tenshi* (child of heaven) are most frequently used. Other titles used in the native parlance or literature are *nin-ō* (king of men), *ō-ō* or *dai-ō* (great king), *ko-tei* (ruler of nations). Other terms, arising from the application of the name of the mikado's place of residence to his person, are: *dai-ri* (imperial palace), *chō-tei* (hall of audience), *kin-ri* (the forbidden interior), *go sho* (palace), which names occur frequently in old European works on Japan. The term *mikado* means honorable gate, like the Turkish "sublime porte," and the Egyptian "pharaoh." The dynasty of mikados is the oldest in the world, the present ruler Mutsuhito (q.v.), being the 123d of the imperial line. The first mikado was Jimmu Tennō, who began to reign 660 B.C., the professed starting-point of Japanese chronology. The first seventeen mikados in the official list are said to have died at ages ranging from 100 to 141 years. The mikados have each a personal name, but no family name, and the name of any one mikado is never repeated; though in two instances in the list, two mikados reigned each twice, and have each two posthumous titles. Seven of these sovereigns of

Japan were females. The average duration of each reign is nearly 21 years. The mikados claim descent from the heavenly gods, and their regalia of sovereignty are a mirror, crystal ball, and sword. The possession of these palladia is the test of legitimacy during civil or dynastic war, of which but one is known in Japanese history—the period 1336–92, when a compromise was made by the rival in possession of the regalia receiving the title of ex-emperor, and handing over the sacred emblems to the other. After death, the mikado receives a posthumous title by which he is known in history. The mikado is allowed twelve *miogo* or concubines, besides the empress; and in addition, there are four noble families called *shinnō*, from whom heirs may be chosen for adoption. Succession is not always to the oldest son, but usually to the mikado's nominee. The imperial household forms a distinct department of the government, called the *kunaishō*.

MILAM, a co. in central Texas, drained by the Brazos and Little rivers and many tributaries of the latter, and intersected by the International railroad; 1150 sq.m.; pop. '80, 18,659—3,952 colored. The surface is uneven and hilly, and in large part covered by forests. The staples are cotton, Indian corn, sweet potatoes, wool, and butter. Sheep grazing and cattle breeding are carried on to a considerable extent. Chief town, Cameron.

MIL'AN, a province in w. part of Lombardy in n. central Italy; bounded n. by the province of Como, e. by Bergamo, s. by Cremona and Pavia, and w. by Pavia and Novara; 1155 sq.m.; pop. '72, 1,009,794. It is drained by the Ticino, which separates it from Piedmont on the w., by the Addio on the n., and also by the Lambro, Olona, and other branches of the Po. The province is traversed by railroads leading to Venice, Como, Parma, and Turin. When subject to the Austrian power the area of Milan was but about 746 sq.m., and it was divided into 15 districts; but in the readjustment of boundaries which followed the establishment of Italian unity and the kingdom of Victor Emmanuel, it was considerably enlarged. Besides the capital, Milan, the only town of any size is Monza, 10 m. n.e. of Milan on the river Lambro, which has about 20,000 inhabitants, and is specially noteworthy for its old cathedral. The portraits of all the sovereigns who have worn the iron crown of Lombardy are to be seen at Monza. The surface of the province of Milan is level, it being a part of the great plain of Lombardy, and the country is intersected by many canals for irrigation; by which means the soil is rendered exceedingly productive. The staple products are fruit, corn, rice, and silk. The cattle are unusually fine. There are many flourishing villages, farms, and country seats; and the whole aspect of the province is indicative of great prosperity. It is now divided into the districts of Abbiategrasso, Gallarate, Lodi, Milan, and Monza.

MIL'AN, ARCHBISHOPRIC or. Of its early history we have no certain knowledge. There is a tradition that the apostle Barnabas established the Christian church at Milan, and was its first bishop. The first bishop of Milan of whom we have any knowledge is Auxentius, 355–74. He was the leader of the Arians in the western church. The orthodox bishops, who at a synod assembled at Rome in 369 condemned Arianism, feared to pronounce against Auxentius because he was protected by the emperor Valentinian I., and, though the synod was prevailed upon by Athanasias to condemn him, he remained in his see till his death. The contest arising from the Arian heresy rendered the election of a new bishop very difficult, and Ambrose, the consular prefect, found it necessary to proceed to the church at Milan for the purpose of restoring order. At the close of his speech both the orthodox and the Arians united in a demand that he should be their bishop. He accepted, and acquired great influence with the people and the emperor Valentinian. He vigorously opposed the Arians, and in 382 presided at a synod which deposed the Arian bishops Palladius and Secundianus. All the bishops who succeeded Ambrose were elected by the people. After the overthrow of the Gothic kingdom, the archbishops of Milan, on account of the hostility between the people and the Lombards, their conquerors, resided at Geneva. But afterwards the Lombards became enthusiastic friends of the church, and the archbishops returned to Milan. Though the first bishop in the kingdom, and having the power even of crowning the king with the so-called *iron crown*, the archbishop was yet subject to the king, and the church was subordinate to the state. After the overthrow of the Longobard kingdom, the power of the archbishops of Milan was much reduced, but they subsequently became more independent than before, large feudal estates being bestowed upon them, and they were the most influential allies of the German emperors. Eriberto di Argago, archbishop of Milan 1019–45, organized in 1034 a revolt against the emperor Conrad the Salic, and was expelled. After his death, in the excitement prevailing over the election of his successor, the popular chief Erlanbaldo persuaded the people to select four candidates, from whom a choice should be made. These names were sent to the emperor Henry II. to make the appointment, but influenced by a faction of the nobles he appointed a rival, Guido di Valate. This appointment was disliked, both by the people on whom he was forced, and by the disappointed candidates. Milan was at one time independent of the papacy, the spiritual and temporal power being granted by the emperor. But the German popes began to interfere. Pope Leo IX. and his successors attacked the Milanese clergy, who at that time were allowed to marry, and in a council held at Rheims in 1049 laws were enacted

against clerical marriage. Archbishop Guido defended the clergy both by Scripture and by a decision of Ambrose which he cited. The popes sent their emissaries, who excited great tumults in Milan, which Guido, who argued in favor of the married clergy, was unable to quell. The people rose in arms and resisted the papal faction, which resulted in fights and bloodshed. Nicholas II., then pope, sent Hildebrand and Anselm to allay the strife. Anselm was conciliatory, but Hildebrand demanded unconditional submission to Rome. In 1059 another papal legation was sent with full power to compel submission from the archbishop and clergy. These ecclesiastics at first earnestly denied the authority of Rome, but finally acknowledged it, signing a paper in which they expressed their penitence in humiliating terms. But when in 1061, after the death of Nicholas, their fellow-citizen Anselm was elected pope under the name of Alexander II., the church of Milan endeavored to regain its independence. A council of German and Lombard bishops convened at Basle and elected Cadalus, who was bishop of Parma, pope under the title of Honorius II. The German bishops, under the influence of Hanno, archbishop of Cologne, sided with Alexander, and in 1064 the synod of Mantua deposed Honorius. Guido, the archbishop, was excommunicated by the pope in 1066, but disregarding the deposition he appeared at the altar to officiate at the services of Pentecost day. The papal party attacked him in the church. His followers rallied for his defense, but he was nearly killed by the papists. A few months later Guido reorganized his party, and the war continued for several years. Hildebrand finally, in 1059, proposed that the Milanese clergy and laity should take an oath that in future their archbishops should apply for confirmation to the pope, not to the German emperor. Guido, weary of strife, resigned his archbishopric to his sub-deacon Gotefrido. He was confirmed by Henry IV., but the Milanese refused to receive him, and to save his life he escaped from the city. The papal appointee was also rejected, and compelled to swear that he would not attempt to enter the see. Milan was thus without an archbishop. Hildebrand, who succeeded Alexander, issued an interdict against it. The Milanese, disregarding the interdict, appealed to Henry IV. for an archbishop. He nominated Tedaldo, who was consecrated. He was the leader of the disaffected bishops who, at the synod of Pavia in 1076, excommunicated pope Gregory himself. He remained in his see till his death, notwithstanding the frequent excommunications from Gregory. With him ceased the independence of the Milan archbishopric. The clergy of Milan now largely belong to the Old Catholic party. The reforms which they seek are the election of priests by the parish, the use of the vernacular in the church service, the cessation of the worship of Mary and the saints, the marriage of priests, etc. E. Serra Gropelli is the leader of the reform party.

MILBURN, WILLIAM HENRY, b. Philadelphia, 1823; studied at Illinois college. In boyhood he lost totally the sight of one eye, and partially that of the other, and the skill of the most distinguished oculists in America and Europe failed to restore it. At the age of twenty he was admitted a preacher in the Methodist Episcopal church, his field of labor being chiefly in the southern states, and his pastorates at Montgomery and Mobile, Ala. He is said to have traveled in the period of his itineracy over 200,000 miles. In 1856 he was chaplain to the house of representatives at Washington. In 1859 he visited England with bishop Simpson and Dr. McClintock, where he delivered lectures with great success in the principal cities. On his return he was confirmed in the Protestant Episcopal church, but returned to the Methodist church in 1872. He is well known as the blind preacher, and as an eloquent lecturer. He has published *Rifle, Axe and Saddlebags; Ten Years of Preacher Life; Pioneers, Preachers, and People of the Mississippi Valley*.

MILES, NELSON A., b. Mass. 1839; received an ordinary education, and took a position in a store in Boston in 1856. When the war of the rebellion broke out, he accepted a commission as first lieutenant, 22d Mass. volunteers, under date Oct. 1861, and was in the seven days' battles, and the engagement at Charles city cross-road. He was wounded in the battle of Fair Oaks, and again at Malvern hill. Between Fair Oaks and the change of base to Harrison's landing, he acted as adjt. gen. of the 1st brigade, 1st division, 2d army corps. Sept. 30, 1862, he was made colonel of the 61st N. Y. volunteers, and led that regiment at the battle of Fredericksburg. At Chancellorsville, he was dangerously, and, as was supposed, fatally wounded, and carried from the field; he however recovered, and during the campaign before Richmond in 1864, he commanded the brigade in which he had been acting as adjt. gen. His commission of brig. gen. was dated May 12, 1864; and he was brevetted maj. gen. Dec. 1864, for gallantry at the battle of Ream's Station. On Oct. 21, 1865, he was commissioned maj. gen. (volunteers); in July 1866 appointed colonel 40th infantry; transferred to 5th infantry Mar. 15, 1869; and brevetted brig. and maj. gen. U. S. army, Mar. 2, 1867. Since the close of the rebellion, gen. Miles has gained high praise as an Indian fighter, being engaged on the frontier, in the protection of the settlements, and in preserving order among the tribes in and out of the reservations.

MILFORD, a t. in s. Connecticut, on the s. shore, with a harbor on Long Island sound, a station on the New York, New Haven, and Hartford railroad, and another at the junction of the Naugatuck railroad with that road; pop. '80, 3,347. It is divided by the Wopewaug river, emptying into the sound; and the Housatonic river celebrated for its beautiful scenery washes its w. border. It is 11 m. s.w. of New Haven, and contains the factories of the Automatic book-sewing machine company, and manufactories of

straw goods, boots and shoes, and carriages. It has excellent public schools, 1 newspaper, 1 savings-bank, 5 churches, and 2 hotels.

MILFORD (*ante*), a t. in e. Mass., on the Boston and Albany railroad, Milford branch, at its junction with the Milford, Woonsocket (R. I.) and Hopkinton railroad; pop. '80, 9,310. It is 18 m. s.e. of Worcester, and 14 from South Framingham. It has 2 banks (1 national), a town-house, 1 newspaper, a public library, and several tanneries. The township includes Milford Center, North, East, and South Milford, and Hopedale, all thriving villages.

MILFORT, LE CLERC, 1750-1817; better known by his given name, a French adventurer, b. near Mézières, and d. there. First a fugitive from justice in France he took refuge among the Creeks of Louisiana, where he acquired the title of "great warrior." During the revolution of 1789 he returned to France, and occupied various military positions in the army, where he distinguished himself often by the resources and bravery of a brigand. In 1802 he published *Mémoires ou Coup d'Œil Rapide sur Mes Voyages dans la Louisiane, et Ma Séjour dans la Nation Creek*.

MILITARY ACADEMY, U. S. See UNITED STATES MILITARY ACADEMY.

MILITARY LAW. See COURT MARTIAL; MARTIAL LAW.

MILITARY PUNISHMENTS, those which are inflicted upon soldiers regularly enlisted, or non-commissioned or commissioned officers, for infractions of discipline or breaches of military law. Among the ancient Greeks the commander of an army was empowered, in case of sedition or mutiny, to cause the ringleaders to be seized and instantly put to death. Thus, we read in the *Iliad* that Agamemnon threatened deserters with death; and Alexander the great, when a mutiny took place partly in consequence of the jealousy excited by the favor which he showed the Persians, caused thirteen of his Macedonians to be executed without a trial. The military law of Athens prescribed the punishment of death for the crime of desertion while on service. Among the Lacedæmonians, cowards and deserters were either put to death or publicly disgraced; offenders who did not suffer the extreme penalty were made, when at home, to wear a parti-colored dress, and were obliged to submit in silence to any insult which the meanest citizen would like to offer. Disgrace was also attached to any soldier who had the misfortune to lose his shield. Said the Spartan mother to her son, "Return, my son, with your shield, or upon it." The ancient Romans punished crimes committed by the soldiery with great severity. For the gravest offenses they were beheaded or crucified; and under the Pagan emperors, some were burned alive, while others were exposed to wild beasts; but this may have been in the cases of those who professed the Christian religion. On the occurrence of a mutiny, every tenth, twentieth, or hundredth man engaged in it was selected for punishment; though sometimes only the ringleaders were chosen. Frequently, in the case of deserters or seditious persons, they were first scourged and afterwards sold into slavery; and sometimes such an offender was condemned to lose his right hand, or was bled nearly to death. If a soldier absented himself from his post when doing guard duty, he was examined by the tribune, and on the offense being proved against him was sentenced to the bastinado. Sometimes the culprit was permitted to escape, if able, while a shower of blows was being visited upon him; but in such instances he became an outcast, whom no one dare harbor. Punishments for theft, or for giving false testimony, and slight breaches of discipline, were lighter, though frequently of a similar character. Sometimes the culprit was temporarily deprived of his pay, forfeited his arms, or was degraded in rank. Again, he was sentenced to remain outside the camp, subject to the danger of being captured by the enemy; or he was made to stand in the prætorium exposed in an unmilitary dress. Or he was sentenced to a period of hard labor, reduced to an inferior rank, or dismissed the service in disgrace. Cowardice, or loss of arms, always subjected the Roman soldier to punishment. A centurion who committed a breach of discipline was condemned to surrender his emblem of authority, a vine branch. The power of life and death rested in the hands of a dictator, who could sentence to death any offender against military regulations; and the Roman consuls had the power of exercising summary jurisdiction in capital cases. Punishments were ordered by the legionary tribunes and by the prefects, with the concurrence of a council. The Roman system of punishments continued in vogue among the nations of modern Europe, so far as military offenses were concerned, until a recent date. Besides the infliction of a certain number of lashes with cords, soldiers convicted of theft, marauding, or any other breach of discipline not punishable with death, were sentenced to run the gauntlet [gauntelope, or ganglope: from gang, a passage, and the root "to run," found in elope]. For the execution of this sentence the regiment was drawn up in a double line, and each man being furnished with a small stick, generally of osier (except the grenadiers, who used their belts), the culprit, naked to the waist, was either marched slowly or allowed to run as fast as he could, according to circumstances, from the head to the rear extremity between the two lines, each man striking him as he passed along. In certain cases the offender was afterwards expelled from the regiment, and sometimes also from the town or district, with a charge never to appear there again under pain of death. The punishment of the knout in the Russian army is inflicted with a leathern strap or belt, having a wooden

handle, and is applied on the naked back of the offender. Cavalry soldiers were formerly frequently punished by the *picket*, as it was called; this consisted in the man being made to hang by his hands from a beam during a certain time, a stake, with its upper end made sharp, being planted in the ground under him, so that, when from weariness he could no longer keep himself up, his foot was pierced with the stake; this kind of punishment has been long abolished. Confinement without light during a certain number of hours was, and still is, a frequent punishment for being absent without leave from parade, either on account of drunkenness or from any other cause. Formerly the pillory was a punishment awarded to offenses of this nature. Besides the punishments of death and transportation, which for great crimes are within the scope of military law in the British army, breaches of discipline are visited by temporary imprisonment, extra drills, extra guards, and the performance of fatigue duties; but punishments consisting of protracted periods of confinement to barracks accompanied by laborious employments, inflicted at the discretion of commanders of regiments, have been abolished for many years, not, however, before the most serious mortality in consequence had made it absolutely necessary. While an army is in the field, breaches of discipline must be punished promptly and with more than usual severity. It might be presumed that acts of treachery will seldom be committed; desertions to the enemy do, however, occasionally take place; but the more usual crime is quitting the ranks on a lawless expedition of plunder, generally accompanied by gross acts of outrage and often murder, against the defenseless people of an invaded or occupied country. In such cases, it is generally conceded that the offenders should be, and they usually are, shot or hanged on the spot. Even when the crime is less heinous, the well-being and perhaps the safety of an army may be periled in consequence of resentment excited among the surrounding inhabitants, and punishment should be swift and condign. In the presence of an enemy there can scarcely be a more serious offense than intoxication; miscarriage of an enterprise, and defeat, with the loss of numbers of gallant men in an action, may be the fatal consequences of indulgence under such circumstances. Whatever may be the defense in other instances, there can be none in this, and the punishment is therefore always immediate and without recourse. The punishment of the lash is one that is now given up by civilized nations. Formerly, and particularly in the British army, a terrible frequency in the use of this discipline could not but tend finally to the demoralization of the men. Gen. sir Charles Napier has stated that in the beginning of this century, when flogging was common, he had frequently seen from 600 to 1000 lashes given under sentence by merely regimental courts-martial; and in those days a man who had suffered a part of his sentence was often brought from the hospital, before his wounds were entirely healed, to receive the remainder. The power of public opinion proved so strong in England, and was so manifestly opposed to flogging in the army and navy, that it gradually fell into disuse, until a regulation issued in 1866 practically abolished it. By the existing law, a man has to be convicted of one disgraceful offense before he becomes liable to flogging for the next one, and fifty lashes is the extreme penalty; see FLOGGING. In the United States this practice does not exist. Punishment by military law is confined, except in the case of the death-penalty, when engaged in war, to imprisonment, expulsion from the service, and minor penalties.

MILITIA (*ante*). The militia system of the United States arose from that jealousy of standing armies which has always characterized the Anglo-Saxon peoples. After the revolutionary war congress determined to limit the regular army to the actual requirements of immediate necessity, and supplement it by a state militia. The president is commander-in-chief of the militia of the several states, when called into the actual service of the United States. He has the power to call out these forces, by orders to any officers of the militia he may address, in case of invasion or rebellion against the authority of the United States. The militia may be required to serve for a period not exceeding nine months. The troops receive during this time the pay and rations of soldiers of the regular army, and the officers rank next after officers of the same grade in the regular service. The majority of the state constitutions require the passage of laws for the organization and equipment of their militia. The governor is the commander-in-chief, and subject to his orders are the necessary officers, chosen by various methods in the different states. It was customary for many years to have annual drill days for all the state troops, who were compelled to attend under penalty, but the laws providing for them have been repealed or fallen into disuse. Voluntary organizations are now formed, which select their own uniforms and the branch of the service they desire to be attached to. They receive small state bounties to perfect their drill and keep themselves in good condition for an emergency. These organizations form only a small part of the whole militia, but quite sufficient for the government in time of peace. The actual militia of the United States consists of these volunteer troops and all other able-bodied male citizens of the age of 18 and under 45, with the exceptions provided by national and state laws, all of whom are subject to be summoned to perform military duty according to the laws of congress or of their respective states.

The state militia was often called out during the revolution, and the "whisky insurrection" of 1794 was put down by the militia of Pennsylvania, New Jersey, Maryland, and Virginia. During the war of 1812 disputes arose between the national and state

authorities regarding the right of the president to determine whether the emergency had arisen which authorized his calling them out, the right to place them under officers of the president's appointment, and the right to march them beyond the limits of the state. The courts decided in favor of the president, and his right to decide whether the militia shall be summoned, and his right to place them under the command of a federal officer ranking their own officers is no longer disputed. During the civil war, the first call of the president for 75,000 men was principally filled by the militia, and the total number of volunteers, drafted men, and militia troops during the whole war was 2,690,401. There were 1,000,516 men in the field at the proclamation of peace, and of these soldiers about 978,000 were volunteers or drafted men.

MILK-FEVER (*ante*), the fever which accompanies or precedes the secretion of milk in women recently delivered. The most common time of its appearance is about the third day after parturition, the symptoms being a quick pulse, increased heat, redness of the face, a diminution or temporary suspension of the lochial discharge, and swelling of the breasts, with a feeling of tension and oppression. There is a tendency to this condition in all women, and perhaps it may be regarded as a normal one, as it is difficult to suppose that so important a phenomenon as the establishment of the secretion of milk could take place without a certain degree of constitutional disturbance, and without there being any real pathological state of any of the organs. There are women, however, who suffer but little constitutional disturbance, comparatively. Those who suffer the most, among healthy women, are the plethoric and robust, and those whose minds are much occupied. Those who are subjects of chronic diseases will be affected in various ways, and no rules of prognosis can be relied on. The natural tendency is for the symptoms to pass away without any special treatment, but a judicious diet of bland articles, with the administration, when indicated, of salines and mild laxatives should not be disregarded.

MILK LEG. See **PHLEGMASIA ALBA DOLENS**, *ante*.

MILK, SUGAR OF, or LACTINE. See **SUGAR (MILK SUGAR)**, *ante*.

MILK TREE. See **ARTOCARPACEÆ**; **COW TREE**, *ante*.

MILKWEED. See **ASELEPIADACEÆ**; **ASELEPIAS**; *ante*.

MILL, JOHN, 1645-1707; b. Shapp, Westmoreland, Eng.; graduated at Queen's college, Oxford, in 1669; was soon after elected a fellow and became eminent as a tutor; entered the ministry, and became distinguished as a preacher; became rector in 1681 of Blechington, Oxfordshire; was made chaplain to Charles II., and received the degree of D.D., the same year. In 1685 he was made principal of St. Edmund's hall; in 1704, by queen Anne, prebendary of Canterbury. The work for which he is the most distinguished is his new edition of the Greek Testament, on which he spent 30 years, finishing it only 14 days before his death. It was undertaken at the advice and expense of Dr. Fell, bishop of Oxford, but after the bishop's death Mill continued it at his own expense, and repaid to the executors what he had received. It was published the year that he died. The text which Mill adopts is that of Robert Stephens of 1550, and contains 30,000 various readings collected from manuscripts, commentaries, writings of the fathers, etc. Dr. Whitby attacked the work in his *Examen variantum lectionum Joh. Milli*; but Dr. Bentley approved the labors of Mill, and Michaelis, Marsh, and other critical scholars acknowledged the value of the edition. It was taken up for a different purpose by Antony Collins in his discourse on *Free Thinking*, in which he contends that "these numerous variations destroy the authority of the New Testament," a book which was ably answered by Whiston and Bentley who show that the variety of readings is only the necessary result of the number and variety of manuscripts. Mill's text has long been held in high esteem by scholars.

MILLARD, a co. in w. central Utah, bordering on Nevada. It is drained by the Sevier river, flowing into the lake of the same name, which is found in the central part of the co., and which has no visible outlet; pop. '70, 2,753-1,974 of American birth. Though of large area-160 m. in length and 65 m. wide-the greater part of the surface is either mountainous or a barren desert. Some small sections are fertile, and here Indian corn and wheat are raised. Chief town, Fillmore City.

MILLARD, DAVID, 1794-1873; b. N. Y.; was the son of a revolutionary officer, and spent his early life in farming. His education was entirely self-acquired. He studied theology, and in 1818 became pastor of a church in West Bloomfield, N. Y., where he remained until 1832. He then edited the *Gospel Luminary*, a religious monthly, and in 1837 settled in Portsmouth, N. H. He occupied for several years the professorship of biblical antiquities and sacred geography in the Unitarian theological school at Meadville, Penn.; and published *The True Messiah in Scripture Light* and *Travels in Egypt, Arabia, Petraea, and the Holy Land*. His life was published in 1874 by his son, Rev. D. E. Millard.

MILLAU, or MILLAUD. See **MILHAU**, *ante*.

MILLBURY, a t. in Worcester co., Mass., 6 m. s. of Worcester, 37 m. n.w. of Providence, on the Blackstone river, the Providence and Worcester, and the Millbury branch of the Boston and Albany Railroads; pop. '70, 4,529. The chief business is the manufac-

ture of cottons and woollens. There are also boot and shoe, whip, carriage, stocking, and cutlery factories, and machine-shops.

MILLEDGE, JOHN, 1757-1818; b. Ga.; was an active supporter of the revolutionary cause, being one of Habersham's party which made a prisoner of gov. Wright of Georgia—the first act of open revolt in that state. At the capture of Savannah, Milledge escaped and was present at its siege by the colonial forces under gen. Lincoln. In many other scenes of the revolution he played a prominent and gallant part, but before the close of the war was asked to take the position of attorney-general, which he did in 1780. He served nine times as the representative of Georgia in congress; from 1802 to 1804 was governor of the state, and filled a short term as U. S. senator, 1806-9. The town of Milledgeville, in Baldwin county, formerly the capital of the state, was named after him. To the establishment of the state university and its seat, Athens, he contributed liberally, and was in fact the founder of both town and college.

MILLEDOLER, PHILIP, D.D., 1775-1852; b. Rhinebeck, N. Y. His father emigrated from Bern, Switzerland, to America about 1751. Philip graduated in 1793 at Columbia college; studied theology, and was licensed to preach at the age of nineteen; became pastor of the German Reformed church, Nassau street New York, in 1795, preaching in German and English. His eloquence drew large audiences. In 1800 he was called to the Third, or Pine street Presbyterian church, in Philadelphia. In 1805 he accepted the pastorate of the Presbyterian church in Rutgers street New York. In 1813 he transferred his relations to the Reformed church, and became pastor of the Collegiate Dutch church in New York. In 1825 he was elected professor of polemic and didactic theology in the seminary at New Brunswick, N. J., at the same time president of Rutgers college, and professor of moral philosophy; which offices he retained until 1841, when he retired to private life. He declined several offers of high position in the church. He was one of the founders of the American Bible society. Dr. Milledoler was a man of great unction and power in the pulpit, and uncommonly gifted in the conduct of public prayer.

MILLE LACS, a co. in e. central Minnesota, bounded on the n. by lakes of the same name; drained by Rum river; 570 sq.m.; pop. '80, 1501-242 of foreign birth. The surface is undulating, and mostly covered with forests. Wheat, corn, and hay are raised, but the chief industry is in getting out and sawing lumber. Chief town, Princeton.

MILLENARIANS (MILLENNIUM, *ante*), in a general sense all who believe that Christianity will attain in the future a marked degree of prevalence through the world. Their faith in this rests on many prophetic descriptions and promises. But that the triumph will be for a limited period is founded on a declaration in the Apocalypse that Satan will be confined in the bottomless pit for a thousand years, and that during the same period the souls of the martyrs and others will live and reign with Christ. Some interpret this period literally; others think that the definite period is put for one indefinitely long; and a third class suppose that a day stands for a year, and consequently that an exceedingly long period is marked out. But while these differences of opinion are found among the general class, a more radical difference divides modern millenarians into two great classes: the one affirming that the period of a thousand years will be introduced by and follow the second visible coming of Christ; the other declaring that the second coming will be after the millennium, and will introduce the end of the world. The first are called strictly premillenarians but in popular usage the title millenarians is almost entirely restricted to them. They hold that the second coming of Christ will be in order to reign visibly on the earth to subdue the obstacles that now restrict the extension of his kingdom, and to destroy the personal enemies of it and of himself. And simultaneously with his coming they believe there is to be a resurrection of a part or of the whole of those who have died in Christ, but that the resurrection of the remainder of mankind will not take place until the end of the world. This point is of vital importance to their whole system. If it be true, much that they teach with it must be admitted; if it be false, the whole system falls to the ground. Their belief in the first partial resurrection rests on three passages of Scripture. The first is: 1. Thess. iv. 16, "The dead in Christ shall rise first." Here, they argue, the distinction drawn is between the dead who are Christians and those who are not; and it is declared that the Christians shall rise first. But to this those who hold the contrary opinion reply that the distinction which the apostle draws is between two classes of Christians—those who have died or will die before the coming of the Lord, and those who then will be living on the earth. The latter, he affirms, shall not prevent (shall not have any priority or advantage over) their brethren who are dead; but that at the coming of the Lord first the dead in Christ will rise, and afterwards those who remain alive shall together with them be caught up to meet the Lord in the air. In this passage, therefore, those who are not premillenarians find no intimation that one portion of the dead will rise before other portions. The second passage, supposed by some to teach that the resurrection of Christians will precede that of other men, is 1. Cor. xv. 22-24, "For as in Adam all die, even so in Christ shall all be made alive. But every man in his own order: Christ the firstfruits; afterwards they that are Christ's at his coming. Then cometh the end, when he shall have delivered up the kingdom to God." Here, premillenarians say, it is taught that

the resurrection takes place in the following order: (1) That of Christ. (2) That of his people. (3) That of other men. And, as between the resurrection of Christ and that of his people a long interval is placed, so there may be a period of less or greater extent between the resurrection of believers and that of unbelievers. To this the other side reply that Paul speaks throughout the passage only of the resurrection of believers. This some among the Corinthians denied, and this, therefore, he undertook to prove, making no reference to the resurrection of other men, knowing that the one sufficiently involved the other. And the "end" of which he speaks, refers, they say, not to the resurrection, but to the completion of the work of redemption, when Christ shall have put down all opposing rule, authority, and power. But the passage which apparently favors the pre-millennarian view most strongly, and without which the others probably would not be supposed to have much force, is Rev. xx. 4-6: "I saw the souls of them that were beheaded for the witness of Jesus, and for the word of God, and which had not worshiped the beast, neither had received his mark upon their foreheads, or in their hands; and they lived and reigned with Christ a thousand years. But the rest of the dead lived not again until the thousand years were finished, This is the first resurrection. Blessed and holy is he that hath part in the first resurrection; on such the second death hath no power, but they shall be priests of God and of Christ, and shall reign with him a thousand years." Premillennarians, interpreting this passage literally, regard it as teaching that a thousand years before the end of the world, when Christ shall come to reign visibly on the earth, there will be a resurrection of Christians from their graves to dwell here, and share with Christ the glories of his reign. To this those on the other side reply that the passage is to be understood not literally, but as a symbolic representation of the actual event. At the beginning of the book it is said that God *signified* the revelation to his servant John; that is, represented it by signs or symbols. Accordingly, the book contains a succession of symbols in which the actual meaning is set forth with striking impressiveness. There are 7 stars, 7 golden lamps, 4 horses and their riders; and so on through the book. Some of them are interpreted, e.g., the stars, the lamps, and the golden censer; others the reader is left to study out for himself. At the beginning of chap. xx. there are two principal symbols employed. 1. The binding of Satan in which the bottomless pit, the key, the chain, are symbols of the suppression of Satan's power over the souls of men. 2. John says that he saw certain classes of souls, that he describes, and that they lived and reigned with Christ a thousand years. That which he saw was—as those who argue against a literal resurrection think—a symbol of the actual event intended to be foretold, viz. the zeal for Christ that his disciples would display. This would be so remarkable that the souls of martyrs would be an appropriate symbol of it; a symbol worthy to be ranked among those employed in this book of revelation. Tried even by this high standard, what symbol, it is asked, could be more significant of devoted zeal than that here employed? How could the piety of a man be more highly commended than to say he has the soul of a martyr? What could be said more expressive of power in a church than that all its members manifest the spirit of those who had forfeited their lives for the testimony of Jesus? How could irresistible power in Christendom be more strikingly expressed than by saying that nowhere or by no person is any other spirit manifested than the spirit of martyrs. Yet, according to this interpretation, John says this will be the case in the millennium. "The rest of the dead lived not again until the thousand years were fulfilled." There will be none like them in all that time. The souls of the wicked, of the worldly, of double minded, half-hearted, or timid Christians, are not an appropriate symbol of Christians in millennium times. And these devoted ones, it is added, shall reign with Christ during the thousand years. They shall not only be devoted to him, but also happy with him. The martyr's zeal will be united with the prosperity of triumphant times. The symbol having been given, the interpretation is added: "This is the first resurrection." That is, the new life of the soul which comes with faith in Christ. This is experienced before the resurrection of the body, and is therefore called the first resurrection. The Savior foretold both together, and placed this first. "The hour is coming, and now is, when the dead shall hear the voice of the Son of God, and they that hear shall live." This describes the resurrection of the soul which was even then taking place. After that comes the description of the general resurrection—even of all that are in the graves. And all through the epistles this resurrection of the soul is affirmed, and its importance is magnified as by the power of Christ, the source of all the life of Christianity in the church. This, therefore, is actually "the first resurrection," separated from the general resurrection by the whole period between the first preaching of the gospel and the last day. And besides this, those who are not premillennarians say there is nothing else foretold in Scripture to which the name, first resurrection, is to be applied. It is probable that neither of these interpretations is found satisfactory in every point by the great mass of the nominal adherents to either view. On each side a few leaders are enthusiastically sure; but the common Christian feeling is that in each view there is some strength and much weakness; that while the strict premillennial view from a flat literal interpretation of a few texts, tends to an externalism and a gross materialism in the handling of noble spiritual facts, the opposite and more usual view tends to dissolve all spiritual facts in a vast sea of symbolism, and this on a principle of interpretation by which any words in Scripture may be turned to almost any meaning. The usual

expedient of seeking a view carefully limited between the two extremes and antagonizing both, seems scarcely feasible in this case. This is not the place to say more than that the truth will probably be found not between, but combining both—not so much rejecting either, as solvent and comprehensive of both in some higher range of thought.

MILLEPORE, a genus of hydrozoa which have recently been placed in a new subclass, *hydroceralline* by Mr. Moseley. It contributes largely to the formation of coral reefs in the West Indies and Pacific. The calcareous skeleton is mostly in the form of laminar expansions having the surface studded with minute holes of two sizes, the larger being the fewest. The larger openings are the mouths of tubes which are divided by transverse calcareous partitions into a number of compartments, only the most superficial of which contain the animals. The smaller tubes are similarly constructed, and the general tissue of the skeleton is composed of trabeculae traversed by a series of anastomosing canals which place the tubes occupied by the zooids in direct communication. On account of some resemblance in the skeleton the *millepora* were formerly classed with the labulate corals. The late Prof. Agassiz was the first to examine the living animals, and he at once referred the genus to the *hydrozoa*. Mr. Moseley arrived at the same conclusion, and has recently had opportunities of examining the living animal minutely. According to him the colony of millepores consist of two kinds of zooids. The larger, or gastrozooids occupy the larger tubes of the skeleton, while the smaller, or dactylozooids occupy the smaller tubes, which are generally placed around the larger in somewhat of a systematic arrangement. The small, or dactylozooids have no mouth and are long and slender, carrying on their sides numerous short, clavate tentacles. They perform the functions of prehension for the colony, and supply food to the stomach bearing gastrozooids, which perform the work of digestion and assimilation for the family. The nutritive fluid thus elaborated is distributed to the colony through branched canals which ramify in every direction. The reproductive process is still unknown. See INVERTEBRATE ANIMALS.

MILLER, a co. in s.w. Georgia, drained by Spring creek, a branch of the Chathochee river, and intersected by the Atlantic and Gulf railroad; 260 sq.m.; pop. '80, 3,720—1393 colored. The surface is level and moderately productive; corn, oats, sweet potatoes, butter, molasses, and cotton, are the staples; of the last the annual yield is about 1700 bales. Chief town, Colquitt.

MILLER, a co. in s. Missouri, drained in the n. by the navigable Osage river; 600 sq.m.; pop. '80, 9,807—9,561 of American birth, 230 colored. Its surface is hilly and nearly equally divided between woodland and prairie; the timber including walnut and sugar-maple trees. In some sections, and along the river bottoms, the soil produces corn, wheat, oats, tobacco, and maple-sugar; and live stock is raised to some extent. The Osage river furnishes water-power, and lead and iron are mined. Lumber is manufactured. Capital, Tusculumbia.

MILLER, CININNATUS HEINE (JOAQUIN MILLER), b. Ind., 1841; while still a boy was taken to Oregon by his parents, and practiced mining in California. He now led an adventurous life, beginning as a volunteer with gen. Walker's Nicaragua expedition in 1855; continuing among the Indians of the Pacific coast; and concluding with his appointment to a county judgeship in Oregon in 1866. In 1860 he had made some attempt at studying law; and in the following year edited a paper at Eugene City, Or., which was suppressed by the authorities for disunion sentiments. In 1870 he visited the eastern states, and thence went to England; where, in the following year, he published his *Songs of the Sierras*, which caused him to be accepted for a time as a "lion" in London society. The poems contained in this volume had previously been published in the United States, where they had made very little impression. Mr. Miller afterwards published other volumes of poetry, and achieved a considerable reputation. He is the author of *The Danites*, which was successful in the United States and England.

MILLER, EDWARD, 1760-1812; b. Del.; son of the rev. John Miller, who was settled over a Presbyterian society in Dover, Del., 43 years, and brother of Samuel Miller, D.D., late professor in the theological seminary at Princeton, N. J. Having acquired a classical education, he attended a course of medical lectures at the university of Pennsylvania and had a year's experience at the military hospital at Baskingridge, N. J. He was surgeon's mate in the U. S. army in 1780, and in 1782 crossed the ocean as surgeon of a French ship of war. Retiring to private life in 1783, he had a successful practice in Frederica, Del., and in Maryland. In 1788 he received the degree of M.D. from the university of Pennsylvania. In 1797, associated with Dr. Samuel L. Mitchill and Elihu N. Smith, he established the *Medical Repository* in the city of New York, the first American medical journal, and was connected with it at the time of his death, witnessing the publication of the 14th vol. and a part of the 15th. He and his coadjutors were members of the Friendly club, whose list bore the names of Dunlap, Brown, Bleecker, and Kent. In 1803 he was appointed city physician of New York. He was a member of the American philosophical society, and published a *Treatise on the Yellow Fever of New York* in 1805, taking the ground that it was not contagious. He was connected with the university of New York in 1807 as professor of the theory and practice of medicine, and in 1809 with the New York hospital as clinical lecturer. He was very popular in the profession and

had a large acquaintance. He was associated with his brother Samuel in his *Brief Retrospect of the Eighteenth Century*. He advocated temperance principles, and deprecated the use of tobacco. In 1814 a memoir of him was published by his brother Samuel in connection with his medical works; and in the *American Medical and Philosophical Register* has appeared a biographical notice by John W. Francis, M.D., of New York. He was distinguished for his learning as a scholar, his generosity and humanity as a physician, and held a high rank among American men of science.

MILLER, HENRY, 1751-1824; b. Penn.; originally intending to practice law, he became a member of the bar, but before becoming established the revolutionary war broke out and he left for the rendezvous with a lieutenant's commission, and marched with his company to Boston. He was soon promoted to col. of the regiment, and led his command in the New Jersey campaign. At the battle of Monmouth, June 28, 1778, between the American forces under Washington and the British under sir Henry Clinton, he had two horses shot under him, and he bore a record for dauntless bravery through the war. He was at one time quartermaster-gen., and at the close of the war turned his attention to mercantile pursuits, doing business in Baltimore. In the second year of the war of 1812 he held the position of brig.gen., commanding the defenses at Baltimore. On the restoration of peace he was appointed, among other offices of trust under government, to be superintendent of revenue for the district of Pennsylvania.

MILLER, HENRY, 1800-74; b. Ky.; studied medicine in Lexington with the celebrated surgeons Dudley and Caldwell, and, having taken his degree of M.D., commenced the practice of medicine in Glasgow, pursued it in Harrodsburg, and finally, in 1835, settled in Louisville as professor of obstetrics and diseases of women and children in the university school of medicine. He made frequent contributions to the prominent medical journals, and was much respected by the profession. In 1849 he published *Human Parturition*, and in 1858 *The Principles and Practice of Obstetrics*, the latter work being a revision of the former enlarged and rewritten, adding the views of Dubois, Cazeaux, Simpson, W. Tyler Smith, and others to his own valuable experience, and giving the results of the obstetric schools of America, Paris, London, and Edinburgh—adapting the knowledge so gained to the wants of students. In 1859 he was elected president of the American medical association, and afterward professor emeritus in the Louisville medical college.

MILLER, HOMER V. M., b. Pendleton co., S. C., 1814; studied medicine at the state medical school of South Carolina, and graduated with high honors in 1835. He then spent three years in the further study of his profession in Paris, began practice in Cassville, Ga., and soon became known not only as a very skillful physician, but also as a public speaker and propagator of education and religion. He occupied a medical professorship at both Memphis, Tenn., and Augusta, Ga.; at the outbreak of the civil war became a surgeon in the confederate army, and was promoted to the rank of division surgeon and then medical director of the Georgia military department. From 1865 to 1869 he was a professor in the Atlanta medical college, and now resides in that city. In 1869 he was elected U. S. senator from Georgia to fill an unexpired term, and took an active part in the acceptance by the state of the reconstruction acts.

MILLER, JAMES, 1776-1851; b. N. H.; was educated for the bar, but when not far from 30 years old entered the army as maj. and took part in the frontier warfare, where he displayed great gallantry. In 1812 he was made col. by brevet, and in 1814 took part in the Canadian invasion in command of the 21st infantry. In the battles of Chippewa and Lundy's Lane he did material service. The latter contest was virtually decided by his gallant charge on a British battery. These services were recognized by congress: a gold medal was presented him, and he was promoted to the rank of brig.gen. From 1819-25 he was governor of Arkansas, then a territory; and from that time until he reached the age of 73 was collector of the port of Salem, Mass.

MILLER, JOAQUIN. See MILLER, CINCINNATUS HEINE.

MILLER, JOSEPH, 1684-1738, an English actor of low comedy, whose name can be found in the casts of Congreve's plays. He was noted for his wit off as well as on the stage, and his name was given to a collection of jokes printed by one John Motley in 1739. The term "a Joe Miller" is now in common use to denote an ancient or stale witicism. The tomb of the original Joe Miller may still be seen in St. Clement's churchyard in the Strand, London.

MILLER, PATRICK, 1730-1815; b. Dalwinston, Scotland. A man of wealth and of a mechanical turn of mind, he began in 1785 to experiment in the construction and propulsion of a vessel in a lake near his estate, and in 1786 gave an account of a vessel which he had made, maintaining in a pamphlet that the steam-engine could be made to work the wheels. With the aid of James Taylor he propelled a boat 5 m. an hour by the steam-engine. But for some reason the experiment was unsatisfactory, and was abandoned.

MILLER, SAMUEL, D.D., 1769-1850; b. Delaware, son of the rev. John Miller, who was a native of Boston and pastor of the Presbyterian church at Dover, Del. The son was graduated at the university of Pennsylvania in 1789 with the highest honors of his class; commenced the study of theology with the guidance of his father and finished the course

under Dr. Nesbit, at Dickinson college; was licensed to preach in 1791; in 1793 was colleague pastor with Drs. McKnight and Rogers, of the first Presbyterian church, New York city, and afterwards of the Wall street church until 1813. He was active in establishing the theological seminary at Princeton, N. J., in which he was professor of church history and government from 1813 till his death. His admirable natural qualities of person, mind, and heart were highly improved by assiduous culture. His manners were remarkably dignified and urbane. In character and attainments he was eminently qualified to be one of the founders and builders of a theological school, and his influence, combined with that of his distinguished colleague Dr. Archibald Alexander—the one being an admirable complement to the other—on successive classes of students can hardly be over-estimated. His preaching was luminous and earnest, his lectures were learned, catholic, enthusiastic, and enlivened with wit and literary grace. He was prominent in the counsels of the Presbyterian church. Among the many works which he published may be mentioned: *Letters on the Constitution and Order of the Christian Ministry*; *Letters on Unitarianism*; *On the Eternal Sonship of Christ*; *Clerical Manners and Habits*; *On the Utility and Importance of Creeds and Confessions*; *On the Office of Ruling Elder*; *On Baptism*; *Letters from a Father to his Son in College*; *Thoughts on Public Prayer*.

MILLER, THOMAS, 1807-74; b. Gainsborough, Lincolnshire, Eng. At first a farmer's boy, then a basket-maker, he spent his leisure in study, and wrote pieces in poetry and prose on rural life and scenery, which attracted attention, and were noticed with favor by Moore, Campbell, and Rogers. By the help of Rogers he became a bookseller. His principal novels are *Royston Gower*; *Fair Rosamond*; *Lady Jane Grey*; *Gideon Giles the Roper*; *Godfrey Malvern*. Among his popular books are those pertaining to the country, including *A Day in the Woods*; *Beauties of the Country*; *Rural Sketches*; *Pictures of Country Life*; *Country Scenes*. His poems are entitled, *Common Wayside Flowers*; *Poetical Language of Flowers*; *Original Poems for my Children*; *Songs for British Riflemen*. He wrote also a *History of the Anglo-Saxons*, and *Lives of Turner, Beattie, and Collins*.

MILLER, WILLIAM, 1781-1849; b. Mass; served during the war of 1812 as a volunteer with the rank of captain, on the Canadian frontier. He was a farmer, and his education limited, but he applied himself to the study of the prophecies, and in 1833 began to lecture on the second coming of Christ, and to predict the destruction of the world in 1843. The very day was named either by himself or by his followers. For 10 years he continued his prophecies, and his converts in the United States, Canada, and Great Britain, called Millerites, Adventists, or Second Adventists, were estimated at 50,000. In consequence of the repeated failure of his predictions his followers gradually forsook him. They, however, regarded him as a man of more than ordinary intellectual power, a cool and honest reasoner, and a sincere devoted Christian. This may be conceded, though he evidently was a blind and ignorant guide.

MILLER, WILLIAM ALLEN, 1817-70; b. England, was a student first at the merchant tailor's school, and having served five years in apprenticeship to his uncle, who was hospital surgeon at Birmingham, took his degree at King's college, London, studying chemistry with Dr. Daniell, under whose direction he investigated the electrolysis of salts. He afterward went to Giessen and studied in the laboratory of Liebig. In 1840 he became demonstrator of chemistry in King's college, London, and in 1845 professor of chemistry there. He has contributed valuable scientific articles to medical and philosophical journals, and in 1851 was appointed assayer at the mint and bank of England, and water commissioner. He was elected president of the chemical society, and vice president of the royal society; and published in 1850 *Elements of Chemistry, Theoretical and Practical*.

MILLER, WILLIAM HALLOWES, b. in 1801 in Carmarthenshire, Wales; educated at St. John's college, Cambridge, and after graduating in 1826, became a fellow and tutor of the college; in 1832 was appointed professor of mineralogy; in 1838 was elected a fellow of the royal society, and since has been elected a member of all the great scientific and philosophical societies of Europe and America. From 1843 to 1854 prof. Miller was engaged as member of a government commission in replacing the standards of weight and measure, which had been destroyed by fire, taking as his share of the work the standard of weight; in 1867 he was again placed on a commission to examine the exchequer standards, and in 1867 on the "*commission internationale du mètre*." The reports of these bodies all gave the credit of their success in great part to prof. Miller's accuracy and scientific experience. He was one of the first to employ the Wallaston goniometer in measuring the angles of crystals, and among his many contributions to the *Proceedings of the Royal Society*, and other scientific publications, are several articles on the subject of crystallography. In 1865 the degree of LL.D. was bestowed upon him by Dublin university, and in 1876 Oxford made him a doctor of civil laws; he was for 17 years secretary of the royal society.

MILLERITES. See ADVENTISTS, *ante*; SEVENTH DAY ADVENTISTS; MILLER, WILLIAM.

MILLER'S FALLS, a village in Massachusetts, partly in the township of Montague and partly in Erving, in the county of Franklin. It was originally called Grout's Corners;

and is pleasantly situated on Miller's river, which affords valuable water power near the point where it empties into the Connecticut. It is at the junction of the New London Northern and the Vermont and Massachusetts railroads. It has extensive factories, where tools are made; and it has an increasing trade.

MILLET, AIMÉ, b. in Paris about 1816; son of a distinguished French painter; after studying painting under his father he studied sculpture under David d'Angers, and has become famous. Imaginative busts, female figures, busts of distinguished men, and lastly colossal figures for bronze, have indicated his genius from the commencement of his career. "L'Ariane," a female figure exhibited in 1857, regarded as one of his greatest works in marble, was bought by the government. His statue of "Mercure" for the court of the Louvre, exhibited in 1859, and "Vercingetorix," a colossal statue in bronze, finished in 1865, are among his later best works. "Apollon," the statue which crowns the grand opera house of Paris, is by him. Millet's scientific knowledge of the human form is said to equal his grace and skill in its molding.

MILLET, JEAN FRANÇOIS, 1815-75; student of painting with Delaroche in Paris. He commenced exhibiting pictures in 1844 with *la Laitière et la Leçon d'Equitation*; in 1845 exhibited *Edipe détaché de l'Arbre*; in 1848 *les Juifs à Babylone*. From that time a marked change came over his style, and from methods of representation distinguished for rough vigor, he became painter of pastoral pieces of the greatest refinement of thought and execution. Of this class are the *Sémeur*, *La Paysanne Assise*, and *Les Botteleurs*, exhibited in 1849 and 1850. He has since become one of the greatest landscape painters in France by representations of field, peasant, and animal life the most quiet, simple, and noble. Among these are the *Berger Moissonneurs*, *Tondeurs de Moutons*, 1852; *Paysan se Reposant sur sa Houe*, 1863; *Bergère avec son Tronpeau*, 1864; and *Femme Battant du Beurre*, 1870. All his works are favorite subjects for engravings, and have thus become familiar works everywhere.

MILLET, PIERRE, 1631-1708; a French missionary who died in Quebec. He came to America in 1666, and labored among the Onondagas and Oneidas till 1684. Afterwards chaplain at ft. Frontinac (Kingston, Canada), from which he was lured, and taken prisoner by Indians in the service of the English. The Christianized Oneidas adopted him into their tribe, much to the chagrin of the English governor of New York, who was suspicious of his French influence with the Indians. The French governor of Canada was quite content with the situation. The narrative of his captivity was preserved and published in New York in 1865.

MILLIER. See METRIC SYSTEM.

MILLI, GIANNINA, b. in 1828 in Italy. When but a child she began to practice the composition of verses, and when a girl of seventeen or eighteen became a pupil of the poet Regaldi, the greatest of Italian improvisatores, and soon developed considerable power in improvising popular and amatory verses. As is the custom with artists of this class, she traveled and gave public exhibitions of her skill in various parts of Italy and Sicily. Medals of gold and silver were awarded her, and after her trips through Tuscany and upper Italy (1857-60) a pension was bestowed upon her by Garibaldi. Since that time she has been engaged as instructress and superintendent in the schools of Naples and Rome. A number of her best efforts have been collected and published.

MILLIGRAM. See METRIC SYSTEM.

MILLILITER. See METRIC SYSTEM.

MILLIMETER. See METRIC SYSTEM.

MILLS, a co. in s.w. Iowa; drained by the Missouri, which bounds it on the w., and by the Nishnabotona river and Keg creek, and intersected by the Kansas City, St. Joseph and Council Bluffs, and Missouri River railroads; 460 sq.m.; pop. '80, 14,135—12,860 of American birth. The surface is in great part prairie, but there are extensive woodlands. Hay, wheat, oats, Indian corn, and pork are the chief products. Co. seat, Glenwood.

MILLS CHARLES, 1788-1825; b. near Greenwich, Eng.; admitted to the bar in 1809, but devoted himself chiefly to historical study. He is the author of *History of Mohammedanism*; *History of the Crusades*, 2 vols.; *Travels of Theodore Ducas*, 2 vols.; *History of Chivalry*, 2 vols.

MILLS, CLARK, b. in Onondaga co., N. Y., 1815, of poor parents; learned the trade of plasterer; and practiced it in Charleston, S. C., for nine years. Developing a taste for sculpture, in 1846 he completed a bust of John C. Calhoun, which was purchased by the city of Charleston for the city hall. In 1848 he furnished a design which was accepted, for an equestrian statue of gen. Jackson, to be placed in Lafayette square, Washington. There being no bronze-foundry for such work in the United States, Mills, after spending two years in modeling the statue, set to work to learn the art of such castings, and erected in Washington an experimental foundry, where, after many mishaps and trials he at last succeeded in Oct., 1852, in producing a perfect cast. It was accepted formally Jan. 8, 1853—the anniversary of the battle of New Orleans. Congress made an extra appropriation of \$20,000 to cover his losses, and remunerate him for his time. He was next engaged on the colossal equestrian statue of Washington, which was formally

received Feb. 22, 1860. For this he received \$50,000. Mr. Mills's last great work was the casting of the colossal statue of Liberty, finished in 1863, which crowns the dome of the capitol at Washington. This was modeled by Crawford. There has been much harsh criticisms of Mills's equestrian statues. Doubtless the work of one without schooling in the great art of sculpture compares unfavorably with that of masters. But there are now enough poor works in the United States by those who have had the highest advantages to show that Mills had the genius for great and good work. His errors are mostly in endeavoring to render his subjects too striking, too expressive. This is especially the case with the statue of gen. Jackson, in which the horse is made to balance reared on its hind feet, and the gen. appears equally excited. Continued through many decennial periods, the pose becomes ridiculous.

MILLS, SAMUEL JOHN, Jr., 1783-1818; b. Conn.; graduated at Williams college in 1809. While in college he formed an association among those students who were considering the question of entering upon foreign missionary work. After spending a short time in the study of theology at New Haven, he entered Andover theological seminary in 1810, where, being deeply impressed with the importance of foreign missions, he endeavored to awaken the same spirit among his fellow-students. With Judson, Hall, Newell, and Nott he united in a memorial to the General association of Massachusetts (Congregational), which resulted in the formation of the American board of commissioners for foreign missions. He was licensed to preach in 1812, and spent two years in mission work in the southern and western states with Messrs. Schermerhorn and Smith. On his return he was ordained June 21, 1815. He published an account of his tour. Finding great destitution of the Bible in those states, he suggested at the close of his report the formation of a national Bible society, which resulted in the organization of the American Bible society. To him was due the formation of the *United* foreign mission society, and also the African school at Parsippany near Newark. Through his exertions in conjunction with Dr. Finley, the American colonization society was formed in 1817, and he was appointed with Dr. Burgess to visit England in behalf of the society, and to explore the west coast of Africa for a suitable site for a colony of colored people from America. He sailed in Nov., 1817, and wonderfully escaped shipwreck on the coast of France. Embarking from England for Africa Feb. 2, 1818, he arrived on the coast Mar. 12. After faithfully exploring it, he embarked for the United States in the brig *Success* May 22, 1818. Having taken a severe cold which was followed by fever, he died at sea June 16. He is called the "father of foreign missions in America." A memoir of him was published by the Rev. Dr. Gardiner Spring.

MILLSTONE. See BUHR-STONE, *ante*.

MILLSTONE GRIT, a species of conglomerate composed of silicious sand and small pebbles. It is named from its frequent use for millstones in England. Its geological position is at the commencement of the coal formation or the terrestrial period. The beds along the Appalachian range in Pennsylvania are very coarse and are over 1200 feet thick. The rock here is a light-colored silicious conglomerate, interstratified with some sandstone, and thin beds of carbonaceous shells. In Virginia the beds are sometimes 1000 feet thick, but here it is principally sandstone, containing, however, deep beds of conglomerate. In Alabama the rock becomes quartzose, is of great thickness, and is used there for millstones. Millstone grit also extends into the southern tier of counties in New York, sometimes attaining a thickness of 50 or 60 feet. In Cattaraugus and Alleghany counties it has a cuboidal structure, which in the course of time has had portions worn and washed away leaving large blocks standing alone, and having various shapes which have suggested such names as "Rock city" and "Ruin city." Fossil plants found in the formation are ferns, calamites, lepidodendrons, and sigillaria.

MILLTOWN, a v. in Washington Co., Maine, on the St. Croix river. The chief business is the manufacture and shipment of lumber. It is on the St. Croix and Penobscot railroad, and is a part of the city of Calais.

MILLTOWN, a t. in Charlotte co., New Brunswick, on the St. Croix river, opposite Milltown, Maine. Pop. 2,000. It has 3 churches, a library, and an academy. The principal business is the sawing and shipment of lumber, of which great quantities are exported. There is also a tool-factory. The St. Croix river is here spanned with several bridges.

MILLVILLE, a city in s. New Jersey, on the West Jersey railroad: pop. '70, 6,101. It is at the head of navigation on the e. bank of the Maurice river 40 m. from Philadelphia and 6 m. s. of Vineland; in a fine agricultural region, with a large local trade. It contains a fine city hall and post-office, 9 churches, a national bank, 4 hotels, and 2 weekly newspapers. Its leading industries are manufactures of lumber, cotton, iron, window glass, and hollow glass-ware. Water and gas pipes are made, and turbine water-wheels; immense wheels for water-works being exported to northern cities. It has excellent public schools.

MILMORE, MARTIN, b. Mass., 1845; began his studies in sculpture under the direction of Thomas Ball. His first effort which attracted public attention was his modeling of the alto-relief *Phosphor*, an ideal subject, which gained the favor of patrons of art. He produced a statuette of *Devotion*, and was given commissions for an ideal of *Miranda*,

and the busts of George Ticknor, Longfellow, gen. Thayer, and Sumner, previous to 1864, and in that year he commenced work on the granite statues surmounting the front of Horticultural hall in Boston, and those of Flora and Pomona, ornamental figures, which were placed in position in 1866. In the following year he designed a bronze statue for the soldiers' monument at Forest Hill cemetery, Boston highlands, and was the sculptor of the army and navy monument on Flagstaff hill, Boston common, 90 ft. in height, erected at a cost of \$75,000, dedicated Sept. 17, 1877. On the four sides of the plinth are bronze mezzo-relievos, one representing the departure of troops, one symbolical of the sanitary commission, another the return from the war, and the fourth to commemorate the achievements of the navy, the departure, and the naval engagement. Above this plinth, 9 ft. high, rises a shaft of white Maine granite of the Roman-Doric order, surmounted by a bronze ideal statue of the genius of America. Bronze figures representing peace, history, the army, and the navy stand on the pedestals at the four corners, and about its base are grouped figures in alto-relievo representing the four sections of the union, north, south, east, and west.

MILNE, WILLIAM, D.D., 1780-1822; b. England. In 1813 he visited China under the London missionary society, traveled extensively in China, Malacca, and other islands of the Indian archipelago. In 1815 he went as missionary to Malacca, translated the Scriptures, superintended the publication of religious works and of a monthly magazine, and presided over the Anglo-Chinese college on which Dr. Morrison had bestowed much labor. He also took part in translating the Old Testament into Chinese, and established a quarterly publication entitled *Indo-Chinese Gleaner*. He published *Retrospect of the Protestant Mission to China*.

MILNER, JOHN, D.D., 1752-1826; b. London; educated at Edgbaston and Douai; took orders, and in 1779 had charge of Winchester chapel. Though a zealous Roman Catholic he refused to join in the attempt in 1788 and 1791, to obtain from parliament the repeal of the laws against the Roman Catholics. He was devoted to the study of archæology, on which he published several works, for which he was admitted in 1790 to the royal antiquarian society. He was engaged in several religious controversies both with Protestant theologians and the Roman Catholic clergy. In 1803 he was appointed vicar-apostolic of the midland district and bishop of Castabala. His chief publications are *History Civil and Ecclesiastical, and Survey of the Antiquities of Winchester*, 2 vols.; *The End of Religious Controversy*; *Letters to a Prebendary*; *A Dissertation on the Modern Style of Altering Cathedrals*; *Treaties on the Ecclesiastical Architecture of England during the Middle Ages*; *Divine Right of the Episcopacy*; *Notes on Ireland*. His works are numerous, but none are more highly valued by Roman Catholics than his *End of Controversy* and *Letters to a Prebendary*. He was a man of great learning and acuteness.

MILNOR, JAMES, D.D., 1773-1844; b. Philadelphia; studied in the university of Pennsylvania, but without completing the course, entered on the study of law and became a practitioner first at Norristown, Penn., and, from about 1797, in Philadelphia. Having by his marriage forfeited his birth-right in the Society of Friends, he attached himself to the Episcopal church, of which his wife was a member. While practicing law he was prominent in the civil councils of the city and, 1810-13, was one of its representatives in congress. Having, 1812, become a communicant of the church he prepared for the ministry, and, 1814, was ordained as a deacon, and 1815, as a presbyter. He was soon after chosen a minister of the united Episcopal churches in Philadelphia, Christ's church, St. Peter's, and St. James's. From 1816 until his death he was rector of St. George's church in New York city; his active service there being, however, interrupted, 1830, by a visit to Europe as a delegate from the American to the British and Foreign Bible society. He was a man of eminent piety, benevolence, wisdom, and dignity, exerting a great influence through the attractiveness of his Christian character. His published writings were chiefly occasional sermons.

MILO, the ancient Melos, a Greek island in the Cyclades group in the archipelago, about 65 m. e. of the Peloponnesus, in lat. 36° 40' n., long. 24° 23' e.; 65 sq. m.; pop. about 3,500. The surface is mountainous, showing traces of volcanic action; and Mt. Calamos is still occasionally active. Mt. St. Elias, in the n.w., the highest point, is 2,338 ft. above the sea level. The soil in the valleys is fertile, and produces wine, corn, oil, fruits, and cotton; but many portions are sterile, and the lowlands uncultivated and malarious. The ancient Melos, of which extensive ruins still exist, was situated on a deep bay in the n. coast. It was a colony of Phenicia, and afterwards of Lacedæmon. During the Peloponnesian war it was captured by the Athenians, who put the adult males to death and enslaved the women and children. The statue "Venus of Milo" was found near Melos, in 1820.

MILO, TITUS ANNIUS PAPINIANUS, 95-48, B.C., b. Italy; belonged to a distinguished family, and married a daughter of Sylla. Few details of his life are known, till his election as tribune of the people in 57. He was then a partisan of Pompey, and attempted to bring about the recall of Cicero from exile. This measure, which was warmly supported by the Pompeian party was bitterly opposed by Clodius, who, as tribune of the people, had been instrumental in passing the law condemning Cicero to exile. Milo attempted to have Clodius condemned as a violator of the public peace, but the proceed-

ings were quashed. Both Milo and Clodius now hired a body-guard of gladiators, and armed collisions between their retainers became almost every-day occurrences. About this time Milo, who had greatly reduced his fortune by the splendid spectacles which he had displayed to the people during his tribunate, married Sylla's daughter, Fausta, for her fortune. Sallust, the historian, was afterwards discovered in adultery with her, and after being severely handled was allowed to escape with his life only on paying a considerable sum of money to Milo. Meanwhile Cicero had come back, and both he and Pompey were continually attacked by Clodius. The latter was elected curule ædile in 56, and in his turn accused Milo of being a violator of the public peace by keeping a force of armed retainers. Pompey conducted the defense of Milo, but no decision was ever reached. In 53 Milo offered himself as a candidate for the consulship. Clodius opposed the candidature of Milo, who was defended in the senate by Cicero in a speech of which some fragments are still extant. On Jan. 20 of the next year Milo was on his way to Lanuvium from Rome, accompanied by his usual band of armed gladiators. Clodius, also with an armed company, met him near Bovillæ. Milo was dictator of Lanuvium, where he was going to take part in some religious ceremonies, with his wife and a friend, and a number of slaves. Clodius had about 30 slaves with him. Milo and Clodius passed each other without trouble; but some of Milo's followers picked a quarrel with the slaves of Clodius, who attempted to interpose, and was at once stabbed in the shoulder by one of Milo's men. Clodius was taken to a tavern in Bovillæ, but was dragged out by the slaves of Milo and put to death. The corpse of Clodius was placed on the rostra of the forum in Rome, and a great mob set fire to the senate house. These acts of popular violence created a reaction in favor of Milo, who ventured to return to Rome. But the disturbance in Rome soon became so great that Pompey was made subconsul. Milo was tried for the murder of Clodius, and though defended by Cicero, he was condemned to exile. He went to Marseilles, and while there received a revised copy of the speech which Cicero had intended to make in his favor. On reading it, he is said to have remarked that he was glad it had not been delivered, "For if so, I should not now be eating such fine mullets at Marseilles." In his absence he was tried and condemned on charges of violence, of bribery, and conspiracy. In 48 he went back to Italy without permission, to join Marcus Cælius, an expelled senator, who was attempting to excite a rebellion in s. Italy, and he was killed before a fort near Thurii.

MILTON, a co. in n. central Georgia, drained by the Chattahoochee river, which forms its s. boundary; 150 sq. m.; pop. '80, 6,261—777 colored. The Piedmont Air Line railroad passes near Warsaw in the s.w. part of the county. The surface is rolling and fairly productive; Indian corn, sweet-potatoes, and wheat are the chief products. Chief town, Alpharetta.

MILTON, a t. in e. Massachusetts on the Old Colony railroad; pop. '80, 3,206. It is 7 m. from the old city limits of Boston, which is reached by a horse railway, and is on the Neponset river, which furnishes water-power for several manufactories; among them a paper mill and Baker's chocolate factory. The latter is an old land-mark, standing near the bridge that spans the river, on the opposite bank of which is the Dorchester district of Boston. Country produce is sent to the Boston market, and ice is exported. Leather and rubber goods are manufactured. It has excellent public schools, 3 churches, and many fine large estates, approached by long drives from the turnpike; and from the crest of one of the famous Milton Blue hills, following this fashionable drive, a view of the harbor, Boston light, Deer island, fort Warren, etc., may be obtained. Its roads are celebrated, being made of the dust of Quincy granite taken from ledges in the vicinity. It includes Milton Lower Mills, having 2 churches, a paper mill, and a granite quarry.

MILTON, a t. in Rock co., Wis., the post village of which is 62 m. by rail s.w. of Milwaukee, at the junction of the Monroe branch of the Milwaukee and St. Paul railroad with the Prairie du Chien division; pop. '70, 2,010. Milton college, established in 1867 by the Seventh-Day Baptists, is its chief institution.

MILUTIN, or **MILYUTIN**, **NIKOLAI ALEXEYEVITCH**, 1818-72; b. Russia; educated at the lyceum of Moscow, graduating in 1835, at the expense of the czar Nicholas, who gave him a free scholarship at the university of St. Petersburg, where he finished his studies in 1838. In 1844 he was appointed chief of the press bureau, but left it to revise the Russian municipal laws. He was appointed by the czar on a committee concerning the serfs, and afterwards was under-secretary of the interior. When Alexander II. came to the throne in 1855, he was his confidential adviser. He countersigned the ukase of emancipation, Mar. 3, 1861, and prepared the laws required by that act. He was made secretary of the interior, and to him are due in Russia the criminal code, the press law, and trial by jury.

MILWAU'KEE, a co. in s.e. Wisconsin, having lake Michigan for its e. boundary; 240 sq. m.; pop. '80, 138,523—83,469 of American birth, 319 colored. It is traversed by the Chicago, Milwaukee and St. Paul railroad, the Chicago and Northwestern, Detroit, Grand Haven and Milwaukee, the Milwaukee, Lake Shore and Western, the Western Union, and the Wisconsin Central. It is drained by the Menomonee, Root, and Milwaukee rivers. Its surface is hilly, and the soil is very fertile, having a lower stratum

of limestone. It produces grain and dairy products, and is adapted to stock-raising. It has manufactures of lumber and wool, machine shops, rolling mills, basket factories, etc. The Milwaukee river furnishes extensive water-power. Wheat is largely exported, and steamers cross the lake in every direction laden with its products and merchandise.

MILWAUKEE (*anté*), the 19th city in population of the United States; pop. '80, 115,578. Lat. 43° 3' 45" n.; long. 87° 57' w. It is 90 m. n. of Chicago, and 80 m. e. of Madison, on the Milwaukee, which flows into the lake from the n. and is navigable for 2 m. from its mouth. The Menomonee discharges into the Milwaukee about $\frac{1}{2}$ m. from the mouth of the latter. The city harbor is 6 m. long and 3 m. wide, and has been extensively improved by the government, so as to be one of the best harbors on the lakes. The city lies on both sides of the river. Its streets are regular, and the architecture has a pleasing appearance, the most common building material being the cream-colored brick manufactured in the city. The business part of the city is in its center, near the rivers; the higher parts to the e. and w. are occupied by residences. The streets are lighted with gas, and well-paved, and there is a good sewage system. The county court-house is an elegant sandstone building, erected at a cost of over \$400,000; the U. S. courts are held in the marble post-office, which is also used for a custom-house. The county jail and workhouse are here. There are 25 public and 50 private schools, a number of academies, an industrial school, 4 orphan asylums, and 2 hospitals. There is a college for women in the city, and a Franciscan college and Capuchin monastery in the suburbs. There is a public art gallery, a public library connected with the young men's association, and a German library and museum. There are 3 theaters, and 47 periodicals, of which 20 are in German; 7 are dailies. The city has 71 churches, a Roman Catholic and an Episcopal cathedral. The former is the seat of the archbishop. Milwaukee is the terminus of 6 railroads: the Chicago and Northwestern; Wisconsin Central; Western Union; Milwaukee, Lake Shore and Western; Detroit and Milwaukee; and Chicago, Milwaukee and St. Paul. It is the greatest wheat market in the world, and the port from which are shipped the agricultural products of the three great states of Wisconsin, Minnesota, and Iowa. The receipts of wheat in 1877 were 19,355,469 bush.; of flour, 1,905,454 bbls.; of oats, 1,550,263 bush.; of corn, 935,739 bush.; of barley, 2,444,454 bush.; of butter, 8,898,875 lbs.; of wool, 2,528,843 lbs.; of cheese, 8,289,701 lbs.* The shipments of wheat for the same year were 18,204,253 bush., and of flour 2,286,786 bbls. There is storage for 6,000,000 bush. Another article of extensive export is lumber, of which 136,429,000 ft. were shipped in 1877, besides 177,189,000 shingles. The Milwaukee river furnishes an abundant water-power for manufacturing purposes. A dam 3 m. from its mouth brings the water up 12 ft. above high-water mark, and a canal $1\frac{1}{4}$ m. long, runs from this dam along the w. side of the river. Manufactories and mills are built along the canal, and their wares can be loaded directly into steamers without another transfer. The most important manufacturing establishments are the iron and rolling mills, with a capital of nearly \$4,000,000, and employing over 2,000 men. There are 13 flouring mills with a capital of over \$1,500,000. Over \$3,000,000 is invested in the manufacture of beer, and \$1,300,000 in the manufacture of leather. Large amounts are invested in the pork-packing business. Among the smaller manufactures are woolen cloth, boots and shoes, sashes and blinds, wagons, barrels, brooms, furniture, tobacco and cigars, soap and candles, paper, and white lead. There are 14 banks, and a number of insurance companies. The national asylum for invalid soldiers is about 3 m. from the city. It is a government institution, and contains some 600 soldiers. A line of steamers runs across the lake, connecting with the Detroit and Milwaukee railroad. The tonnage of vessels belonging to Milwaukee is nearly 70,000. Milwaukee has a very large German population, and many Scandinavians and Bohemians are settled there. It is divided into 13 wards, each of which elects 1 alderman and 2 common councilmen. The city is furnished with water from the lake. Its first white settler was a Frenchman named Juneau, who came there in 1825 to engage in the fur-trade, and was afterward mayor. It was incorporated as a city in 1846.

MIMNERMUS, B.C. about 635-600; b. probably at Colophon or Smyrna, but little is known of his life except as disclosed in his poems. As an elegiac poet he is spoken of by ancient critics with great admiration, but of his work only a few fragments remain. These are partly erotic, and in part treat of such subjects as the short-livedness of pleasure, fleeting youth, etc.; and all his topics are tinged with melancholy. He was the first to adapt the elegiac verse to this kind of composition. The best of his existing poems is *Nanno*, a love song to a young musician.

MINA, Don FRANCISCO ESPOZ Y., 1782-1836; b. Spain; first distinguished himself in 1809 by guerrilla warfare, organizing bands of mountaineers in Catalonia to repel the French invaders. In 1810 he became commander-in-chief of the Catalonian army, and noted for his incessant activity and remarkable presence of mind. In 1812 he was made commander in Aragon, with the rank of general, and assisted in gaining the victories of Salamanca and Vittoria, and conducted an efficient blockade of Pampeluna. Discovering, when peace was made, in 1814, that he had been laboring in the interest of the despotic policy of Ferdinand III., he made an ineffectual attempt to gain over the garrison of Pampeluna to the cause of freedom, and then sought an asylum in France. While resident in Paris he was arrested by a French commissary of police, employed

by the Spanish ambassador. On this occasion Louis XVIII. acted with great magnanimity. He dismissed the commissary, demanded the recall of the Spanish ambassador, and not only released Mina but gave him a pension of 1000 francs. In 1822, when the army of Cadiz proclaimed the constitution of 1812, and began a new revolution, gen. Mina repaired to Navarre, where he learned that the king had accepted the new constitution, and accordingly ceased an aggressive movement which he had already undertaken. He was appointed capt. gen. of the armies of Navarre, Catalonia, and Aragon; but on Ferdinand recanting his assurance of adherence to the constitution, he again retired from Spain, and went to England. After the accession of Isabella II., under the regency of queen Christina, he became prominent in the operations against don Carlos; and on these ending, the charge of educating the young queen was allotted to gen. Mina and his wife.

MINA, XAVIER, 1789-1816; b. Spain; nephew of Francisco; educated for the priesthood. He was with his uncle in the guerrilla warfare of 1808-09, was taken prisoner in 1810, and detained four years at Vincennes. In 1814 he was again in arms, and forced to flee to France. Thence he went to England, where he interested himself in the cause of Mexican patriots struggling for independence, and by the aid of some prominent Englishmen chartered a vessel, purchased arms, organized an expedition, and sailed for America, arriving on the coast of Virginia in the summer of 1816, with his party. In the United States he received sympathy and substantial support, and took 200 volunteers with him, arriving at Galveston in November, but soon afterwards crossing over to New Orleans obtained more assistance, and after being reinforced by 100 Americans at Galveston, landed at Soto la Marina, province of Tamaulipas, April, 1817. He now marched at the head of 500 men towards the capital, fighting his way through such bodies of Spaniards as he met. He was successful in a number of engagements, but was at length surprised at night, captured, and put to death in front of the fortress of Remedios, Oct. 27, 1817.

MINAMOTO, or GEN, the name of an ancient noble family in Japan, whose members for many centuries were military vassals of the mikados. Under the leadership of the Minamoto generals the whole of eastern and northern Japan, above the 36th parallel n. lat. was conquered, and the aboriginal tribes brought under the government of the imperial court at Kioto, and the brocade banner of the mikado was borne even into Yezo. The Minamoto family was founded by two grandsons of the 57th mikado, Seiwa, who reigned 859-76. From these princes, in two branches, have descended the hundreds of illustrious military characters whose names and exploits fill the annals of Japan. Among their living descendants are seventeen families of nobles of the imperial court, of whom are Iwakura, now premier, Ohara, Higashi, Kuze, and other prominent rulers. Their crest consists of three bamboo leaves surmounted by gentian flowers. See YORITOMO.

MINAS GERAES, an interior province in e. Brazil, bounded on the n. by Bahia, on the e. by Porto Seguro and Espirito Santo, on the s. by Rio Janeiro and São Paulo, and on the w. by Goyaz, 237,481 sq. m.; pop. '72, 2,039,735. It is an elevated table-land, intersected by many mountain chains, which send out offshoots in all directions. The highest peaks are Itambi, 5,950, and Itacolumi, 5,750 ft. above the level of the sea. Between the mountain ridges are sloping and well-watered valleys. There is an abundance of small streams, which flow into the São Francisco, or the tributaries of the Parana. The São Francisco rises in the s. of the province, flows through almost its entire length, forms the boundary line between Bahia and Pernambuco, and between Sergipe del Rei and Alagoas, and finally falls into the Atlantic ocean. The Doce and the Jequitinhonha flow e. to the Atlantic, and the Rio Grande and Rio Parnahiba unite to form the Parana. Other rivers of importance are the Verde Grande, Paranahyba, Rio das Velhas, and Mucury. On account of its elevation the climate is much milder than that of districts within the same parallels of latitude. The soil is fertile, and produces the ordinary cereals of the temperate zones, besides the crops characteristic of a warmer climate, such as tobacco, cotton, sugar, coffee, and indigo. Ipecacuanha, manioc, and jalap are produced largely. The productions of the country are exported to the neighboring provinces, from which imports of wine, salt, and flour are made. The valleys between the mountains are used for grazing purposes, and cattle are raised in large numbers. The mines were formerly among the richest in Brazil, yielding large quantities of gold, but they are for the most part abandoned, though gold is still found in paying quantities. Diamonds were discovered in the province in 1746, and diamond-washing is extensively pursued. Other varieties of precious stones are found in the rivers. The mineral deposits are extensive, including, besides gold and silver, iron, lead, mercury, bismuth, antimony, alum, and sulphur. The want of railroads makes transportation, which is dependent on mules, difficult and expensive. Cotton and woolen manufactories, foundries, and other manufacturing industries have been introduced. Capital, Ouro Preto.

MINATITLAN, a t. on the isthmus of Tehuantepec, Mexico, 125 m. s.e. of Vera Cruz, on the w. side of the Coalzacoalcos. It is in a flat country, and is often exposed to floods. Mahogany grows in the region, and considerable is exported. This t. is the proposed terminus of the Tehuantepec ship canal and railroad.

MIND, GOTTFRIED, 1768-1814, b. Switzerland; educated at Pestalozzi's charity school. His education, however, except in the art of design, was extremely limited. He was naturally eccentric, and a deformity to which he was subject increased his peculiarities, and made him avoid society. He was fond of cats, his pictures of which are his most characteristic works. He was also successful in the delineation of children and beggars. He died poor, but some of his pictures have since been sold at very high rates.

MINDORO. See **PHILIPPINE ISLANDS**, *ante*.

MINE. See **MINES**; **MINING**; *ante*.

MINER, a co. in s.e. Dakota, drained by Sand Hill creek and Marsh creek, affluents of the Dakota river; about 504 sq. m.; pop. '80, 363-299 of American birth. It is principally slightly undulating prairie land, little cultivated, but with a soil of exceptional fertility.

MINER, ALONZO AMES, D.D., b. N. H. 1814; principal of the military and scientific academy at Unity, New Hampshire, 1835-39. In the latter year, he was ordained to the Universalist ministry. He has been pastor of Universalist churches at Methuen, Lowell, and Boston, an overseer of Harvard college, a member of the Massachusetts board of education, and president of Tuft's college, Medford, from 1862 to 1874, when he re-assumed the pastorate of the second Universalist church, Boston. He is an advocate of total abstinence, and has been the candidate of the "prohibitory" party for governor of Massachusetts. He was also prominent in the antislavery agitation.

MINER, THOMAS, 1778-1841; b. Conn.; a graduate of Yale, and a physician who gained some distinction in his profession by the publication in 1825 of *Essays upon Yellow Fevers and other Medical Subjects* and a treatise on *Typhus Syncopalis*. He was also one of the founders of the Yale medical institute, and the Connecticut retreat for the insane. His autobiography was published in the *New Englander*, vol. ii.

MINERAL, a co. in n.e. West Virginia, having the n. branch of the Potomac river, the Baltimore and Ohio railroad, and a ridge of the Alleghany mts. for its w., n., and n.e. boundaries, separating it from the state of Maryland; 280 sq. m.; pop. '80, 8,629-8,170 of American birth, 486 colored. Its surface is mountainous with wide fertile valleys, and is drained by Patterson's creek. The soil is adapted to the cultivation of grain and potatoes; its dairy products are considerable, and live stock is raised. Iron and bituminous coal are mined, and largely exported. The Chesapeake and Ohio canal follows the course of the river and the railroad on its n.e. border, and the Cumberland and Pennsylvania railroad terminates at Piedmont. Capital, Keyser.

MINERAL ACIDS, in medicine. The ordinary mineral acids are sulphuric (oil of vitriol), nitric (aqua fortis), hydrochloric (muriatic acid), phosphoric, chromic, and carbonic acids. Of these the latter only is usually regarded as a gas, that being its ordinary condition, but all the others are gases or vapors at certain temperatures, except phosphoric and chromic which on being heated change in composition. Concentrated sulphuric acid boils (in other words becomes a vapor) at 620° F., and concentrated nitric at 184° F. Hydrochloric acid is a solution of a gas in water, and has constantly varying degrees of strength. An aqueous solution boiling at 230° F. gives off a vapor which contains 20.22 per cent of anhydrous acid gas dissolved in 79.78 per cent of water, which may be condensed in a receiver. A more concentrated solution when heated yields at first only gas; as it gets weaker by parting with the gas, water begins to pass off along with it. These acids have various uses in medicine. Sulphuric, nitric, chromic, and hydrochloric acids in a concentrated state are powerfully corrosive, and on this account nitric acid is used in surgery as an escharotic, to destroy warts and other excrescences or diseased growths or unhealthy tissues. It has the property of only injuring the tissue as far as it destroys it, leaving a wound which heals easily. Sulphuric acid, on the contrary, produces an inflammation which does not readily subside, while hydrochloric acid used as an escharotic produces sloughing, sometimes of a dangerous character. Chromic acid which is ordinarily a crystalline solid of a beautiful crimson color is soluble in water, and its solution, of a proper strength, is also used as an escharotic in surgery, and is generally preferred to nitric acid, being rather more manageable. It is also used, in weaker solutions, as an application to the gums in scrofulous patients, when there is a tendency to ulceration, and in other ill-conditioned states of the system, and also as a styptic for arresting surface hemorrhage. It is not administered internally. Sulphuric acid in a diluted form is sometimes employed as a tonic, and its various salts are many of them valuable medicines. See sulphates in **SULPHURIC ACID**, *ante*. Dilute nitric acid is given as a medicine in several affections. It sometimes succeeds in intermittent fever when quinine is contra-indicated, and has been given in dysentery, on the recommendation of Hope. In some forms of dyspepsia and mal-assimilation it is useful in assisting digestion and improving nutrition. In combination with hydrochloric acid, in the form of diluted aqua-regia, it is often successfully used in cases of jaundice, and also in some forms of dyspepsia, hydrochloric acid being a natural ingredient of the gastric juice. Dilute nitric acid has been used with benefit in diabetes mellitus, and it is stated that in large doses, largely diluted in water, it has cured several cases of diabetes insipidus. It has also been successfully used in scrofula and glandular enlargements.

See CARBONIC ACID, NITRIC ACID, HYDROCHLORIC ACID, and phosphoric acid in PHOSPHORUS.

MINERAL DEPOSITS. This term is generally understood as a collection of metalliferous ores occurring in geological formations where they have been deposited by the processes of nature, and have, with some exceptions, undergone more or less alteration, either in composition or position, by subsequent changes. Sometimes the ore is a native metal, but is more frequently a mixture of compounds of different metals. A single metal may be the principal one, the associated metals forming a mixture which is called a gangue, the principal ore and the gangue constituting the deposit. In general, ores may be classified as follows: compact, when the structure is close and fine-grained; granular, when composed of visible particles; micaceous or finely laminated, when existing in the form of minute scales, as, for example, micaceous specular iron ore; disseminated, when scattered throughout the gangue in laminae or coarse grains; porphyritic, when distributed in distinct crystals; banded, when the principal ore, or the gangue, or both, are arranged in parallel layers, or bands. Sometimes the bands are arranged concentrically, when the deposit is said to be concentric-banded; brecciated, when the deposit contains fragments of other rock or of older ore, these fragments often forming nuclei around which the ore or the gangue has formed further deposits or crystals; and it is called drusy when there are many cavities lined with crystals. Mineral deposits may also be divided into superficial, stratified, and unstratified deposits. Superficial deposits are those in which the materials lie in a more or less unconsolidated or loose condition where they have been washed from cliffs and mountain slopes whose rocks contained metals, ores, or gems. The surface gold deposits of California, Australia, and the Ural are examples, as also the platinum beds of Oregon and Siberia, and the stream tin of Cornwall, Australia, and Durango, and the diamond, sapphire, and ruby "mines" of Brazil, South Africa, and the Indies. The ease with which such deposits are worked renders them as a rule the most profitable when first discovered. Stratified deposits have their examples in the coal beds, and many beds of iron, such as the clay iron-stone of the coal measures; and the schistose copper beds in the triassic sandstones of New Mexico. Unstratified deposits have their examples in those metamorphosed rocks which have been much disturbed by geologic forces, as the iron ores of Missouri, lake Superior, and the Alleghanies. These deposits were formerly supposed to be of eruptive origin, but it is now understood that they are principally stratified deposits which have been subjected to great disturbance and to metamorphism. The vast deposits of metallic copper in the lake Superior region were once supposed to have been formed from subterranean fusion, but it has been pretty clearly demonstrated that the metal was deposited from solution under the influence of galvanic or magnetic action. There are, however, eruptive rocks which contain minerals in disseminated condition, such as the volcanic rocks containing the amygdaloid copper of lake Superior, and the volcanic rocks in Japan, from which large quantities of copper are obtained. Among the unstratified deposits are what are called *contact* deposits. These occur at the junction, or surface of contact, of two different formations, as where sedimentary have been displaced by igneous rocks. Concretions and sheets of ore are thus found at the junction of trap and sandstone. Deposits occur also as *impregnations*, where the metalliferous mineral is diffused through a mass of rock in irregular streaks of more or less richness, as is generally the case with deposits of quicksilver. *Fahlbands* is a name given to deposits where the ore is diffused through certain layers which become more softened or rotten, or *fahl*, than the other strata. Examples of fahlbands are more frequently met with in mines in Scandinavia than elsewhere. *Stockwork* is a kind of deposit where the rock is penetrated in every direction, so that the ore must be taken out with the mass of the metalliferous rock. Some of the great iron ore deposits of the world, as the magnetic stock at Tagilsk in the Ural and the hematite of the Missouri iron mountain are examples, as also the copper mines of lake Superior, and the silver mines of Norway, Saxony, and Nevada.

Mineral veins are sheets of metalliferous matter, which are divided into three principal varieties—gash veins, segregated veins, and fissure veins. Gash veins are those which have been formed in fissures that have resulted from the shrinking of the rock, and are limited to one rock, generally to one bed. Examples are seen in the lead mines of the upper Mississippi, where the ore is confined to the Galena limestone, a lower Silurian formation. It usually occurs in vertical fissures of little depth, but sometimes in horizontal fissures, often opening into caves or chambers lined with ore; indeed, gash veins are often the commencements of cave formations. Segregated veins are those which are interposed between the strata, and always occur in metamorphic rocks, metamorphism being the cause of the segregation by the separation of the metalliferous materials from the masses of adjacent strata. They have not the banded character of the fissure veins (to be described), and are generally composed of quartz, often rich in gold. All the granitoid rocks of the Alleghanies are of this character, and contain more or less gold. Iron, and also copper, and less frequently nickel, are common associates. Fissure veins, true veins, or lodes, are formed in fissures which have been produced by volcanic or earthquake action. The displacements caused by these forces result in the formation of fissures because of the inability of the strata to return to their former rela-

tional position from the interposition of wedges of rock or other causes. The subsequent filling of the fissure by metalliferous material forms the vein or lode. As a consequence of the mode of formation, a fissure-vein is usually of unequal thickness, having the form of a wedge. They usually send out minor fissures, generally at acute angles, which are called branches, and sometimes feeders. The horizontal direction of a vein is called its strike or course, and is expressed by degrees of the quadrant in relation to points of the compass. The vertical angle which it makes with the horizon is called the dip. Geological disturbances are a frequent cause of displacement of parts of veins, forming what are called faults. The ores contained in fissure-veins are various, such as silver, copper, lead, tin, zinc, antimony, and other metals. Gold is less common than in segregated veins, and it is usually only worked in them as a side product. Silver is the most valuable constituent, and these veins constitute the great silver repositories of the world. The Comstock lode and various others in Nevada are examples. Various theories have been advanced to account for the filling of mineral veins. The earliest was the plutonic theory, which supposed that the materials were injected into the fissures in a state of fusion. An irresistible objection to this theory is that such a method would have necessitated the production of alloys to a much greater extent than is found to obtain. A later theory regarded the formation as the result of aqueous deposition, or sedimentation, in the manner of limestone and other sedimentary rocks. An overwhelming objection to this theory is the fact that veins are not horizontally stratified, but the materials are often deposited in vertical positions against the walls of the fissures. The theory of lateral secretion or transfusion has been proposed, which supposes that the contents of the fissures were derived by percolation through the walls of the veins from the adjacent rocks; but a fatal objection to this theory is the fact that the composition of a mineral vein is often the same throughout its extent, or in passing through various strata, whereas it ought to vary if the theory were true. Again, two veins of dissimilar constitution often traverse the same stratum adjacent to each other. This theory demands that they should be alike. The chemical precipitation theory regards the deposition as due to precipitation from superheated solutions under great pressure. These solutions, coming from subterranean sources, part with heat in passing into the fissures. The deposits made by thermal springs are instanced as affording illustrations of this mode of production. Water containing salts of various kinds is capable, when under great pressure and at a high temperature, of dissolving most minerals; and if it came in contact with silicic acid charged with sulphur, many metals with which it came in contact in its passage through the fissures would be reduced to sulphides and deposited on cooling. Illustrations embracing the action of solutions of various saline and other bodies are carried to a greater or less extent in systematic works. Most mineral veins are more or less decomposed when situated at or near the surface, and, indeed, this condition usually extends downwards to the permanent water level, below which the ore is usually in its original state, which is, generally, a sulphide. In Cornwall the decomposed portion of a mineral vein is called a gossan, and this term is generally used among miners who speak the English language. In the gossan, silver ores are usually converted into chloride, bromide, etc., associated with various-shaped masses of native silver. Sulphide of copper is converted into oxides, and then into malachite, azurite, the green and blue carbonates, and into chrysocolla, the green hydrous silicate. On account of the disintegration which has taken place the gossan is more economically worked than that part of the vein which lies below the water level, and is in its natural state, and therefore the first workings of mineral veins are generally the most profitable.

MINERAL POINT, a city in s. Wisconsin, the n. terminus of the Mineral Point railroad a branch of the Illinois Central; pop. '70, 3,055. It is 45 m. w. of Madison, 180 m. from Chicago, 190 m. from Milwaukee, and 36 m. n.e. of Dubuque, Iowa. Large quantities of lead are taken from mines in the neighborhood, the surrounding country being a rich mineral region; and a vast amount of copper and lead is annually exported. It has zinc smelting furnaces, lead furnaces and foundries, 2 banks, a number of excellent public schools, a seminary, 6 churches, 2 hotels, 3 newspapers, and a car factory. It is a market for grain and general produce supplied by a tract of country 15 m. square.

MINERAL WATERS, ARTIFICIAL. See **AERATED WATERS**, *ante*.

MINERSVILLE, a borough in e. Pennsylvania, on a branch of the Philadelphia and Reading railroad at its junction with the Schuylkill Haven and Mine Hill railroad, and the terminus of the People's railway to Mount Carbon; pop. '70, 3,699. It is on the West Branch of the Schuylkill river, in the center of the anthracite coal mining region, not far from Broad mountain, 46 m. n.e. of Harrisburg, and 4 m. w. of Pottsville, in the southern or Schuylkill coal field. Other mineral deposits are sandstone, shale, and limestone. It is in a valley surrounded by hills seamed with iron ore and covered with the rough and dangerous apparatus of anthracite coal mining. It has a newspaper, 10 churches, a public library, water works, a well-organized fire department; there are machine shops and iron foundries, an anthracite furnace, a car factory, soap and shoe factories, and flour and saw mills.

MINGRELIA, the name of a division of Russia in Asia, on the Black sea; partly bounded by Circassia; 2,600 sq.m.; pop., 240,000. It is a rugged, mountainous country, but, in the southern part, fertile slopes lie along the river Rion, the most important

stream in this part of Russia. Extensive forests of valuable timber cover the mountains, and there are mines of copper, some of which are worked; gold has also been found. The country is peopled by Georgians; not, however, of as fine a type as those who inhabit the Caucasus. It was formerly a part of Georgia, and, at a later period, was ruled by native princes; one of whom, in 1867, ceded his rights to Russia, on being paid the sum of 1,000,000 roubles. Mingrelia was the ancient Colchis, where was the mythical golden fleece, in pursuit of which occurred the expedition of the Argonauts (q. v.). It was also the birth-place of Medea. The productions are tobacco, maize, rice, wool, honey, and wine. Silk is manufactured to some extent.

MINIÉ, CLAUDE ÉTIENNE, b. Paris, 1810; entered the army as a volunteer, and served in Algeria during several campaigns. He was made capt. in 1849, and in 1852 was appointed by Napoleon III. superintendent of the school of ordnance at Vincennes. In 1858 he resigned this post, and was appointed by the Egyptian government to superintend a manufactory of arms and a school of gunnery at Cairo. His invention of the Minié rifle was made about 1833, and adopted by the French government. It was the first practical introduction of the principle of expansion in the manufacture of firearms, and gave to the bullet a precision and range previously unknown to gunnery.

MINING. See APPENDIX.

MINING CORPORATIONS, companies incorporated under national, state, or colonial law, to mine for the precious metals or other minerals. Such companies are sometimes permitted also to manufacture, or to do a milling or reduction business, in connection with mining; or to engage in transportation—as of coal from the mine to the market. Mining property is held by purchase and absolute ownership, or by lease. In the Dominion of Canada leases are granted by the queen, and a royalty on the yield paid to the government. The number of mining companies in the United States in good standing, reported on Jan. 1, 1881, was 212, divided as follows as to the location of the mines: California 37, Colorado 80, Montana 4, Dakota 11, North Carolina 5, Nevada 31, Arizona 15, Maryland 1, Utah 11, New York 1, Georgia 3, Michigan 5, Mexico 2, Arkansas 2, New Mexico 1, Virginia 3. These mining properties were capitalized in the sum of \$931,000,000. As an illustration of the extent to which mines were over-capitalized, it may be mentioned that the market-value of the properties of 95 of these mines capitalized in \$745,000,000, estimated on the selling prices of the various stocks, was (in round numbers) \$60,000,000, or eight per cent of the capital; amounting to the fact that the stocks in question were at the time when the figures were procured selling on the mining-stock exchange of New York city at the discount of 92 per cent.

MINISTER, CHRISTIAN. See CLERGY, *ante*.

MINISTER,—MINISTRY (*ante*). I. FUNCTIONARY DIPLOMATIC. By the American system ministers to exercise diplomatic functions near foreign courts are appointed by the president and confirmed by the senate of the United States. They are accredited by letter to the sovereign of the country to which they are appointed, and are permitted certain immunities and privileges: being entitled to be addressed as "excellency," and conceded exemption from the operation of municipal law. The United States send no envoys of the rank of ambassadors, permanently accredited to foreign courts; but have not infrequently conferred the rank and authority in the case of special missions. See AMBASSADOR, *ante*. II. FUNCTIONARY EXECUTIVE. In the United States government the executive offices are under the immediate official direction and control of the heads of the departments, including those of state, treasury, interior, war, post-office, navy, justice, and agriculture. Seven of these officials have seats in the cabinet or council of advisers of the president, and are termed "the cabinet." They are the secretaries of state, war, the treasury, the navy, and the interior; the postmaster-general, and the attorney-general, or head of the department of justice. These officials are appointed by the president and confirmed by the senate; their duty is to administer or execute the functions of their respective offices under the direction of the president, to whom they are immediately responsible and to whom they report annually; and from time to time on special subjects if so desired by him. They hold their offices at the will of the president, who may request their resignations if the good of the public service shall seem to require it. As an advisory council, they assemble at the call of the president, or at stated times, for conference, to enunciate opinions or to answer questions. There is nothing, however, in the constitution or elsewhere in American law which renders it obligatory on the president to employ them in this manner, though custom has made it usual and convenient so to do. Excepting to the president for the proper performance of their official duties, they have no responsibilities; and in no particular except in the nature of these duties do they resemble the ministers of Great Britain or those of the European powers. See CABINET, *ante*.

MINNEAPOLIS, a city in s.e. Minnesota, incorporated 1867; enlarged by the annexation of the city of St. Anthony, 1872; situated at the falls of St. Anthony, 10 m. w. of St. Paul; pop. '80, 46,887. It is built on a broad plateau, through which flows the Mississippi river, overlooked by bold bluffs, which command a view of the surrounding country, noted for its picturesque scenery. At the falls of St. Anthony the river makes a descent of 50 ft. within a mile (80 ft. within the limits of the city), and has a perpen-

dicular descent of 18 feet. It is crossed by 4 bridges, including a suspension bridge built in 1876; and in the vicinity are lakes Cedar, Calhoun, and Harriet. It is supplied by means of the river with extensive water-power, which is utilized by immense manufactories and mills. The value of the lumber sawed in one year was \$2,948,335; that of flour made in one year was \$7,320,410. It has grocers who do a business of from \$4,000,000 to \$5,000,000 a year; and large dry-goods and commercial houses. There was expended in the city, for building and improvements, in one year, \$1,729,700. The leading industries are lumber and flour, and among its flour-mills is one with 40 run of stone—the largest in the country. An immense amount of grain is milled; other industries are the manufacture of iron machinery, engines and boilers, water-wheels, agricultural implements, sashes, doors, and blinds, beer, cotton and woolen goods, furniture, barrels, boots and shoes, paper, linseed-oil, etc. It has pork-packing establishments, and a large number of saw-mills. It has been a city of rapid growth, and has an important wholesale trade, which is constantly increasing. It is on the Chicago, Milwaukee and St. Paul railroad, at the junction of the St. Paul and Pacific and the Lake Superior and Mississippi with the Minneapolis and St. Louis line, all of which roads transport a large amount of freight, which is increasing yearly. It has a line of steamers to St. Cloud. It is regularly laid out, with avenues 80 ft. wide, crossed by streets at right angles, which are shaded by two rows of trees; is lighted by gas; is well sewered; and has a public park. It has 10 wards, a mayor, and board of aldermen of two members from each ward, a police force, and a fire department. There are 11 banks—6 national, with an aggregate capital of \$1,025,000. Among public buildings are a court-house, a city hall erected in 1873, an academy of music, and an opera-house. There are 65 churches. The atheneum has a library of 8,000 vols. Minneapolis is the seat of the university of Minnesota (non-sectarian, and open to both sexes), organized in 1868, and having a library of 10,000 vols.; and the Augsburg theological seminary (Lutheran), established by the Scandinavians of the n.w., with a library of 1100 vols.; also Hamline university (Methodist). It has 14 newspapers—2 Norwegian, 1 German; and 2 semi-monthly periodicals, 1 Norwegian. The falls of Minnehaha (laughing water) are 3 m. distant.

MINNEHAHA, a river and fall in s.e. Minnesota, near the station of Minnehaha on the St. Paul and Pacific railroad, one-half mile from the Mississippi river and a short distance from Minneapolis. Considerable interest attaches to this cascade, it being the scene of a legendary romance wrought into the story of Longfellow's poem of *Hiawatha*. The river Minnehaha flows over a limestone cliff, making a sudden descent of 60 ft., and the story runs that Minnehaha, an Indian maiden crossed in love, here took the fatal leap. Minnehaha, in Dakota language, signifies laughing water.

MINNEHAHA, a co. in s.e. Dakota, having the state-line of Minnesota for its e. boundary; drained by the Big Sioux river and small affluents; 800 sq.m.; pop. '80, 8,252—5,502 of American birth, 48 colored. It has Beaver lake and other small lakes in the n.w. Its surface is generally rich level prairies with little timber, but very productive where under cultivation. It is intersected by the Sioux City and St. Paul railroad, and its county seat contains a U. S. land office. Capital, Sioux Falls.

MINNESOTA (*ante*). In 1680 a party of French fur-traders ascended the Mississippi to the falls of St. Anthony, where they formed a settlement. Louis Hennepin, a Franciscan priest, accompanied them, and gave the falls the name which they have since borne. This was the first white settlement made within the limits of the state, and it soon degenerated by the adoption of Indian manners and habits. In 1763 the territory was ceded to Great Britain; in 1766 it was explored by capt. Jonathan Carver, of Connecticut; and in 1783 it became a part of the United States, and was included in the north-west territory. In 1805 a tract of land at the mouth of the St. Croix and another at the mouth of the Minnesota were purchased of the Indians, but the region was settled slowly. In 1820 fort Snelling was built, and two years later a mill was erected on the site of Minneapolis. In 1823 the first steamboat ascended the Mississippi to the falls of St. Anthony. Some time before 1830 a small colony of Swiss settled near St. Paul. It was not until 1838 that the Indian title to lands e. of the Mississippi was extinguished, and a settlement was commenced at Stillwater in 1842. In 1849 the territory of Minnesota was organized by act of Congress, the w. boundary being the Missouri river. The population of the territory at this time did not exceed 5,000. Two years later the Indian title to the lands (except the reservations) between the Mississippi and the Red river of the north was extinguished, and from this time the settlement of the territory was rapid, immigrants pouring in so fast that in 1857 congress opened the way for its organization as a state, and it was admitted to the union May 11, 1858. The new state grew rapidly in population, wealth, and intelligence. After the breaking out of the rebellion, 1861, the Sioux Indians, taking advantage of the absence of great numbers of able-bodied citizens, attacked the new settlements, massacring families, burning villages, and driving the almost defenseless inhabitants from their homes in a state of utter destitution. The assault had for excuse the injustice which has marked the whole history of the United States in its dealings with the Indians; but there could be no justification for the savage cruelties inflicted upon the whites, nearly 1000 of whom perished. The outbreak was speedily and effectually suppressed, and the tribe removed from the state. There is still

in the state a considerable body of friendly Chippewas, dwelling upon several reservations and making no trouble.

The surface of the country is, for the most part, undulating, with no mountain ranges, but with a low, broad elevation in the northern part, which divides the waters flowing toward the Mississippi from those which empty into Hudson's bay, and both these from those which find their way to the Atlantic through the St. Lawrence. The divide at its highest point of elevation is not more than 100 ft. above the adjacent country, though it is 1680 ft. above the ocean, and nearly 1000 ft. above the extreme s. part of the state, the descent toward which is so gradual as hardly to attract observation. Three-fourths of the state are rolling prairie, interspersed with oak openings, belts of timber, and innumerable small lakes, and drained by numerous streams of clear water. The remaining fourth includes the divide above-mentioned, the mineral tract near lake Superior, and the heavily wooded region around the sources of the Mississippi and the Red river of the north. The state is mostly drained by these two rivers, by the St. Louis, and their numerous tributaries. The chief affluents of the Mississippi are the Minnesota (itself a noble river, with numerous branches), the Root, Zumbrota, Cannon, Sauk, Crow Wing, Willow, St. Croix, and Rum river, the outlet of Mille Lacs lake. The Red river has several branches—the Buffalo, Wild Rice, Red lake, etc.; while the Ushkabwaka, Big White Face, Stone, Floodwood, and Savannah are tributary to the St. Louis. A multitude of small streams flow into lake Superior, while the Vermillion, Little Fork, Big Fork, and others discharge into the Rainy Lake river and the chain of lakes which form a part of the n. boundary of the state. The Mississippi is navigable within the state for 540 m., the St. Croix for 53 m., the Minnesota at high water for 300 m., the Red river for 250 m., and the St. Louis for 21 miles. One thirty-fifth of the entire area of the state is covered with lakes. The largest of these are Leech, Red, Mille Lacs, Vermillion, Winnebago, Big Stone, Traverse, Cass, Otter Tail, and Itasca. The navigable waters of the state have a shore line of 2,700 miles.

Iron and copper ore of excellent quality are found in the section bordering upon lake Superior, and iron also in the s. and s.w. portions of the state. Gold and silver in moderate quantities are found in the neighborhood of Vermillion lake, but the region is so wild and inaccessible that the mines are not worked. The n. portion of the state, along the Red river valley and the basins of the lakes and streams which form the n. boundary, is one of the finest wheat-producing regions in the world. The prevailing forest growths in this region are the oak, beech, elm, and maple. The n.e., or mineral, portion of the state is less productive, though it yields fair crops. Much of it is covered with a heavy growth of pine, spruce, and other woods valuable for timber. The three-fourths of the state lying s. of the highlands is a country of unsurpassed fertility. About one-third of all the land surface of the state is covered with forest. A tract on both sides of the Minnesota river, over 100 m. long and of an average width of 40 m., is known as the Big Woods, wherein are almost every species of deciduous trees found anywhere in the northern states. On the prairies have been planted more than 20,000,000 of forest trees, the state tempting the owners of the land to this species of culture by liberal bounties. The hardier fruits, such as apples, crab-apples, pears, cherries, plums, grapes of the northern varieties, strawberries, raspberries, currants, blackberries, etc., yield abundantly. For peaches and the tenderer sorts of grapes the seasons are too short.

Among the wild animals most common are the gray and prairie wolf, bears, wild cats, raccoons, foxes, gophers, woodchucks, deer, rabbits, and squirrels. The principal fur-bearing animals are the otter, mink, beaver, and muskrat. Feathered game is abundant, including ducks, wild geese, pigeons, grouse, partridges, and wild turkeys. The smaller birds are of numerous kinds, many of them distinguished for their gay plumage or the melody of their songs. The climate is less rigorous than might be expected from the high northern latitude. The winters are indeed long, but the air is dry and the temperature even, on which account the state is a common resort of invalids, especially of those with pulmonary complaints.

The number of miles of railroad in operation in the state at the close of 1878 was 2,608—all constructed within 17 years. The total earnings of the roads in 1878 were \$7,431,199; amount of earnings over expenses, \$2,958,871; passengers carried, 1,590,649; tons of freight, 2,496,559; state revenue from the roads, \$180,000. The whole cost of the roads built before 1875, including real estate and equipments, was \$95,312,171.

As an agricultural state Minnesota is not far from the front rank. The growth of wheat (mostly spring-sown) is immense, the yield per acre being larger than that of any other state e. of the Rocky mountains. The grain crops of 1873, stated in bushels, were as follows: Wheat, 26,402,485; oats, 12,544,536; corn, 6,457,368; barley, 669,415; rye, 96,877; buckwheat, 29,445;—total, 46,200,126. Other crops in the same year were thus reported: Potatoes, 2,196,138; flax-seed, 100,853; tons of hay, 144,712; tons of wild hay, 783,619; lbs. of hops, 57,291; sorghum syrup, 53,226 galls.; lbs. of flax, 1,227,547; lbs. of tobacco, 28,324; number of apple trees in bearing, 3,832,038; bushels of apples, 20,307; lbs. of maple sugar, 139,952; lbs. of honey, 134,266; lbs. of wool, 529,856; lbs. of butter, 10,140,316; lbs. of cheese, 1,031,510. The locust plague inflicted great injury upon the growing crops for three successive seasons, beginning in 1874. The insects, coming in vast swarms from the Rocky mountains and settling upon thriving fields, in a few hours devoured every vestige of vegetation. In 1874 the losses from this source

were estimated as follows: Wheat, 2,646,802 bush.; oats, 1,816,733 bush.; corn, 738,415 bush.; potatoes, 221,454 bush.; and other crops in relative proportion. In 1875, in 16 counties, the losses were: Wheat, 1,432,573 bush.; oats, 842,965 bush.; corn, 500,958 bush. In seven counties, in 1875, the bounties paid for the destruction of 56,336 bush. of the insects amounted to \$78,505. The live stock in the state in 1875 were: Horses, 167,313; cattle, 467,568; mules and asses, 5,257; sheep, 162,807; hogs, 141,810. The number of farms in the state in 1878 was 60,816, covering a tilled area of 3,429,164 acres. The early sugar cane is extensively cultivated: the syrup produced in 1877 amounted to 140,150 galls. The product of 1878 is not accurately reported, but it was much larger than that of 1877.

The water-power of Minnesota is so abundant and so thoroughly diffused as to afford in every part of the state all the manufacturing facilities that could be desired. In 1870 the number of manufacturing establishments was 2,072, with a capital of \$11,806,738; producing goods valued at \$23,396,097; persons employed, 9,726. The principal lines and their productions were as follows: Flour, \$6,982,959; lumber, \$5,058,157; sash, blinds, and doors, \$1,162,482; carriages, wagons, etc., \$595,780; machinery, locomotives, etc., \$2,051,283; agricultural implements, \$304,575; blacksmithing, \$559,501; boots and shoes, \$529,204; printing and publishing, \$350,386. There has no doubt been a great increase in manufacturing industry in the last ten years, but accurate statistics are lacking. We know that in Minneapolis alone, in 1874, goods were manufactured of the value of \$15,000,000. The flour manufactured in the state maintains the first rank. The assessed value of real estate in 1879 was \$229,791,042; of personal property, \$57,193,455.

The total receipts into the state treasury during the year ending Nov. 30, 1878, including a balance of \$133,271 from the previous year, were \$1,610,909; the sum disbursed was \$1,562,410. The bonded debt of the state in 1875 amounted to \$480,000.

The foreign commerce of Minnesota is carried on through the two ports of St. Paul and Duluth, and by steamers to Manitoba on the Red river of the north. The number of arrivals under this head at St. Paul in 1874 was 23 steamboats and 6 barges, with an aggregate of 2,505 tons; imports valued at \$15,340. At Duluth, upper end of lake Superior, during the same time, arrived 241 steamers and 47 sailing vessels, of an aggregate tonnage of 168,241 tons, manned by 6,092 men; cleared, 244 steamers and 48 sailing vessels, with an aggregate tonnage of 168,061 tons, and crews of 6,096 men. The foreign goods received were valued at \$407,841, and the duties on them amounted to \$183,118. The export to other states of lumber, wheat, flour, agricultural implements, etc., and the domestic importation of salt, coal, and merchandise keep the railroads busy.

There were in the state in 1874, 32 national banks, with a capital of \$4,448,700, and a circulation of \$445,000. There were at the same time 6 state banks, with resources amounting to \$1,380,000. There were also seven savings banks, doing a prosperous business. The Farmers' mutual fire insurance association at Minneapolis, in 1874, had assets amounting to \$158,302. The St. Paul fire and marine insurance company had a capital of \$400,000; assets, \$728,632. There were also 62 insurance companies doing business in the state under charters derived from other states. One life insurance company, the Minnesota mutual, chartered by the state, and 32 others chartered elsewhere, were doing business in the state. The population of Minnesota in 1870 was 446,056; in 1875, 609,777; in 1880, 780,806. The males in 1875 numbered 316,076; the females, 281,331; natives of this country, 379,978; foreigners, 217,429, of whom a large proportion were of Scandinavian origin. The first settlers of the state were chiefly from New England, and they went to the new state with a fixed determination to establish therein schools and colleges of a high order of excellence; accordingly much has been done to this end. In 1874 the children of school age (5 to 21 years) numbered 210,194, of whom 128,902—a larger proportion than in any other western state—were in school during some portion of the year. The number of school districts at that time was 3,266; number of school-houses, 2,758; valued at \$2,238,700; number of schools, 2,789, in which the average attendance was 99,842; number of teachers, 5,482, of whom 1834 were males and 3,648 were females; total amount of teachers' wages, \$678,606; average monthly wages of male teachers, \$41.57—of female teachers, \$30.52. The average annual length of the schools was nearly 7 months, and the whole amount expended for their support in 1874 was \$1,155,542. The number of graded schools was 151, and there were high schools in many of the cities and larger towns, in which pupils were fitted to enter the university. The school fund amounted to \$3,030,127; and it is expected that by the sale of lands devoted to the purpose it will be eventually augmented to \$10,000,000. The state has 3 normal schools, one each at Winona, Mankato, and St. Cloud. The number of pupils in these schools fitting themselves for teachers in 1874 was 905, of whom 548—126 males and 422 females—had been regular in their attendance. Women enjoy the right to "vote at elections for school officers and in matters pertaining to the schools," and are "eligible to hold any office pertaining solely to their management." The university of Minnesota, organized at Minneapolis in 1867, embraces seven departments, viz.: collegiate, scientific, literature, and the arts, agriculture and the mechanic arts, medicine, and law. In all these courses it is intended to be as thorough as any institution of the kind in the United States. It is endowed with both the university and agricultural college lands, which are expected ultimately to produce the sum of \$1,000,000. There are in the

state two other colleges, viz.: St. John's, near St. Joseph's, a Roman Catholic institution, and Carlton college (Congregational) at Northfield; also, many academies and seminaries, several of the latter especially for girls, and two or three business colleges. There are also three theological schools—the Augsburg evangelical seminary at Minneapolis, St. John's Roman Catholic seminary, and the Seabury divinity school (Episcopal) at Faribault. The public institutions of the state are the reform school of St. Paul, the institution for the deaf, and dumb and the blind at Faribault, a soldiers' orphans' home at Winona, the hospital for the insane at St. Peter's, and the state prison at Stillwater. A second asylum for the insane will soon be completed. There is a private orphan asylum at St. Paul, and another at Shakopee.

In 1874 128 newspapers were published in the state, 15 of which were dailies. The number of libraries in the state in 1870 was 1412, containing 360,790 volumes. The whole number of church organizations in 1874 was 1247; church edifices, 880; church members, 113,705; ministers, 871. The principal denominations, in numerical order, were: Methodists, Roman Catholics, Lutherans, Baptists, Presbyterians, Episcopalians, Congregationalists, German Methodists, Universalists, and Christians.

The governor and other state officers are chosen by a plurality vote for a term of two years. The governor receives an annual salary of \$3,000. The legislature, composed of a senate and house of representatives, the number of whose members is fixed from time to time by law, meets annually, the sessions being limited to 60 days. St. Paul is the capital. The election takes place on the Tuesday succeeding the first Monday in November. The supreme court consists of a chief-justice and two associate justices, elected by the people for 7 years, and receiving a salary of \$3,000. It has original jurisdiction in cases prescribed by law and appellate jurisdiction in matters of law and equity. In this court there are no jury trials. There are 11 judges of the district courts, each of whom is elected by the people of a district for a term of seven years. In Ramsey co., embracing the city of St. Paul, and Hennepin co., embracing the city of Minneapolis, there are courts of common pleas, whose judges have the same tenure of office as those of the district courts. Minnesota furnished to the army and navy during the war for the suppression of the rebellion more than 25,000 men. The electoral votes of the state for president and vice-president of the United States have been cast as follows: 1860, 4 for Lincoln and Hamlin; 1864, 4 for Lincoln and Johnson; 1868, 4 for Grant and Colfax; 1872, 5 for Grant and Wilson; 1876, 5 for Hayes and Wheeler; 1880, 5 for Garfield and Arthur.

MINNESOTA, UNIVERSITY OF, at Minneapolis, Minn., founded in 1863, under state control, consists of the collegiate department, with 3 courses of study; the college of science, literature, and the arts; the college of agriculture; and the college of mechanics' arts. Departments of law and medicine are to be organized. It is governed by a board of 10 regents, 7 of whom are appointed for 3 years by the governor; the governor, the president of the university, and the superintendent of public instruction are members *ex officio*. Tuition is free to both sexes. There are 19 instructors, and the library contains about 10,000 vols. The present endowment is about \$220,000, and will ultimately reach \$1,000,000 by the sale of lands. The annual income is about \$30,000. The state geological and natural history surveys are in charge of the faculty.

MINNETAREES, or HIDATSA, a tribe of Indians, originally part of the Crow tribe, but for nearly a century associated with the Mandans, and settled on the upper Missouri river. Their number is not more than 450 or 500, having gradually decreased for many years. Treaties have been made with them by the government and a reservation in Montana set apart for them, but they prefer to remain where they are, gaining their living entirely by hunting and fishing. Though friendly to the whites, they have had many wars with the Sioux and other tribes. A dictionary and grammar of the language has been printed.

MINO BIRD. See MINA BIRD, *ante*.

MINOT, GEORGE, 1817-58; b. Mass.; read law in the office of Rufus Choate, and was admitted to the bar in 1839. He soon obtained a large practice in Boston. He reported the decisions of judge Levi Woodbury of the circuit court, and edited, in association with Richard Peters, jr., 8 vols. of the *U. S. Statutes at Large*, and was sole editor of that work from 1848 to 1858. He published in 1844 *A Digest of the Decisions of the Supreme Court of Massachusetts*, and edited, between 1853-54, the *English Admiralty Reports* in 9 vols.

MINOT, GEORGE RICHARDS, 1758-1802; b. Boston; educated at Harvard, and called to the bar. From 1781 to 1791 he was clerk of the Massachusetts house of representatives, and was secretary of the convention called to ratify the federal constitution. He continued the practice of his profession till 1792, when he was appointed judge of probate for Suffolk county. In 1799 he was made chief-justice of the court of common pleas, and from 1800 till his death he was judge of the municipal court of Boston. He published a *History of Shay's Rebellion*, 1788, and a *History of Massachusetts Bay*, 2 vols., 1798-1803. The latter work is in continuation of Hutchinson's.

MINOT'S LEDGE, a light-house on a ledge of Cohasset rocks from which a fixed light is exhibited and a fog bell is rung. It is 16 m. from Boston, and 8 m. s.e. of Bos-

ton light, on the s. coast, a position of great peril to incoming vessels. It is indispensable, as without it, from the nature of the entrance to the harbor, in a n.e. gale vessels would with certainty be driven on the rocks if they failed to make the entrance. It is $1\frac{1}{2}$ m. from land, and the rock on which it stands, 25 ft. in diameter, is visible only at low water, when the height is for a short time about $3\frac{1}{2}$ ft. above the water line. In 1847 congress made an appropriation for the construction of a light-house at this point, called the Outer Minot, surmounted by a dwelling placed at the height of 55 ft. above the highest rock. A skeleton iron light-house was designed and erected by capt. W. H. Swift of the U. S. engineers at a cost of less than \$40,000. It was formed of 8 heavy wrought iron piles, solid 10 in. skeleton shafts, with one additional in the center. The piles were each in 2 parts, connected by cast iron tubes 3 ft. long, the piles being secured to the tubes by large steel keys passing through the tubes and piles; and in its entire construction it was thought to be as secure as modern science could make it; but it stood only 2 years. On April 17, 1851, during one of the heaviest gales known on the coast, it was completely wrecked. A $5\frac{1}{2}$ in. hawser, anchored to a block of granite in the sea 50 fathoms from the base of the light, was attached at the other end to the top of the structure 63 ft. above the rock used ordinarily for raising boxes, etc. The keeper had carelessly allowed some stores, that should have been below, to remain out on the scaffolding. This was supposed to be one cause of the disaster; and another was the quantity of ice that adhered to the piles. The money for the present structure was appropriated in 1852, and the plans were made in 1855, the success of the enterprise being due to the late chief engineer gen. J. G. Totten, his plans being executed by gen. Barton S. Alexander. It is of conical form 30 ft. at the base, built of granite, the height of the stone work being 88 ft., solid for 40 ft. from the base, the stones dovetailed, and bound together by galvanized wrought iron pins 3 in. in diameter. The portion above this solid work is divided into the apartments of the keeper, 5 stories, with 4 iron floors, his store rooms, and the light on the 6th floor. Two years were required to level the foundation rock, working from April 1 to Sept. 15, and then only when the tide served. The first stone was laid on July 9, 1857; 4 stones were placed in position during the season. In 1858 six courses were laid; the following year the structure reached a height of 60 ft.; and in 1860 it was completed at a cost of about \$300,000, and the beacon was lighted.

MINSIS INDIANS. See MUNSEES.

MINSTREL, a musician of the middle ages who was also a poet and singer: the term is applied to a class of persons who were to administer their skill in poetry and music for the amusement of their patrons. The various ways in which the word was written have perplexed the etymology. It appears, however, to have been no more than a consequential usage of the French *ministre* and the Latin *ministri*. They are in low Latin sometimes called plainly *ministri*; by Chaucer, in his *Dream*, "ministers," and in the old paper roll printed by Leland we find "ministers" who were appointed "to syng." The minstrels appear to have accompanied their songs with mimicry and action, and to have practiced such various means of diverting as were most admired in those rude times, and supplied the want of more refined entertainment. These arts rendered them extremely popular and acceptable in England and all the neighboring countries, where no high scene of festivity was considered complete that was not set off with the exercise of their talents, and where, so long as the spirit of chivalry subsisted, they were protected and caressed, because their songs tended to honor the ruling passion of the times, and to encourage a martial spirit. The minstrels seem to have been the genuine successors of the ancient bards, who, under different names, were admired and revered, from the earliest ages, among the people of Gaul, Britain, and, indeed, through almost all Europe, whether Celtic or Gothic; but by none more than by the early Germans, particularly by the Danish tribes. Among these they were distinguished by the name of *scalds*, a word which denotes "smoothers and polishers of language." Their skill was considered as something divine, their persons were deemed sacred, their attendance was solicited by kings, and they were everywhere loaded with honors and rewards. When the Saxons were converted to Christianity this rude admiration began to subside, and poets were no longer considered a peculiar class or profession. The poet and the minstrel became two persons. Poetry was cultivated by men of letters indiscriminately, and many of the most popular rhymes were composed amidst the leisure and retirement of monasteries. But the minstrels continued to be a distinct order of men, and obtained their livelihood by singing verses to the harp at the houses of the great. There they were hospitably received, and retained many of the honors conferred upon the bards and the *scalds*. Although some of them only recited the compositions of others, many of them still composed songs, and all of them could probably invent a few stanzas upon occasion. Some of the longer metrical romances were written by monks, but the shorter narratives were probably composed by the minstrels who sung them, and there is no doubt that most of the old heroic ballads were produced by this order of men. From the striking variations which occur in different copies of these old pieces it is evident that they made no scruple to alter one another's productions; and the reciter added or omitted whole stanzas, according to his own fancy or convenience. In England the profession of minstrel was a popular and privileged one from the time of the conquest, but this entertaining class never met with so much royal patronage as during the reign of Rich-

ard I. This brilliant crusader, himself an adept in the minstrel's art, invited to his court many minstrels and troubadours from France, and loaded them with honors and rewards such as arms, clothes, horses, and money. The well-known story of Richard's favorite minstrel, Blondell de Nesle, discovering his royal master by singing a French chanson under the walls of a German castle in which he was a prisoner, has never been authenticated, but it presents a popular illustration of the traditional devotion of the royal minstrel to his art. The instances of regard shown to minstrels during subsequent reigns are abundant. Edward II. rewarded his minstrel William de Morle, known as "Roi de North," with certain houses which had previously belonged to the degraded minstrel John de Boteler, called "Roi Brunard." We also find from Rymer that in 1415, when Henry V. was on his voyage to France, he was accompanied by eighteen minstrels, who were to receive twelve pence a day. Indeed, the minstrels were often in those days more amply paid than the clergy. From the time of Edward IV., however, the real character of the original minstrels was gradually lost; and they were seldom called upon to furnish a specimen of their venerable art except when some great personage condescended on a public occasion to patronize the rude pastimes of his ancestors. The genuine minstrel was seldom to be found in England, and the name had become so far degraded as popularly to denote a mere musician. It is true that at the magnificent entertainment of queen Elizabeth by Leicester, at Kenilworth castle, in 1575, a person was introduced to amuse the queen, in the attire of an ancient minstrel, who called himself "a squire minstrel of Middlesex," but this was no doubt a part of the masquerade. Before Elizabeth closed her reign the degradation of minstrelsy was completed. By a statute in her 39th year, minstrels, together with jugglers, bear-wards, fencers, common players of interludes, tinkers, and peddlers, were included among rogues, vagabonds, and sturdy beggars, and were adjudged to be punished as such.

MINT (*ante*). The first U. S. mint was established at Philadelphia by the coinage act of April 2, 1792; and the first production of the new mint was the copper cent of 1793. Silver dollars were first coined in 1794 and gold eagles in 1795. Branches of the Philadelphia mint were organized at New Orleans, Dahlonega, Ga., and Charlotte, N. C., in 1835; at San Francisco, Cal., in 1854, and at Carson City, Nev., in 1870. Those at New Orleans, Dahlonega, and Charlotte have been given up. Assay offices were set up at New York in 1854, at Denver in 1864, and Boise City, Idaho, in 1872. The act of April 1, 1873, put all the mints and assay offices on the same footing as a bureau of the treasury department, under the superintendence of the director of the mint, who is appointed by the president for a term of 5 years, and is under the supervision of the secretary of the treasury. The director of the Philadelphia mint, who had hitherto been called director of the mint, was now known as superintendent of the Philadelphia mint. Every mint has a superintendent, melter and refiner, assayer, and coiner, and the Philadelphia mint has an engraver, who supervises the manufacture of the dies used in all the U. S. mints. The total production of the mints for 1880 was: gold coin, \$56,157,735.00; silver, \$27,942,437.50; minor coins, \$269,971.50. The present director of the mint (1881) is Horatio C. Burchard, of Illinois.

MINTO, GILBERT ELLIOT, Earl of, 1751-1814; entered the British parliament as a whig in 1774. He was minister to Denmark from 1788 to 1794, then went to Corsica as viceroy. On his return in 1797 he was created baron Minto, and two years later he became ambassador to Vienna. On his reappearance in the house of lords he became an advocate of the union of Ireland with England, and afterwards strenuously opposed Roman Catholic emancipation. He was governor-general of Bengal from 1807 to 1813, and in the latter year received the titles of earl Minto, viscount Melgund.

MINTURN, ROBERT BOWNE, 1805-66; b. N. Y.; entered mercantile life at an early age in New York city, and became eventually a partner in the well-known shipping house of Grinnell, Minturn & Co., in which he accumulated a large fortune. He was chiefly noted as an active promoter of the city's charities; as one of the founders of St. Luke's hospital; for patriotic service during a visit to Europe in 1861; and as an earnest worker in behalf of the freedmen. At the time of his death he was president of the Union League club of New York.

MINUCIUS, FELIX MARCUS, an eminent apologist of the Latin church in the 3d century. He was a native of Africa, but removed to Rome, where he was a successful advocate until his conversion to Christianity. Jerome and Lactantius speak of him as much admired for his eloquence. He wrote a work entitled *Octavius* in the form of a dialogue between a Christian called Octavius and a heathen called Cæcilius. Octavius defends the Christians from the calumnies which were circulated against them, charging them with crimes in their secret religious meetings. He, on the other hand, exposes the licentious practices of the heathen. The style of the work is argumentative and pure, and much information is given concerning the manners, customs, and opinions of that period. As an apology for Christianity his work compares favorably with those of Justin, Tertullian, and other early advocates of the Christian faith, and with those of Lactantius, Ambrose, and Eusebius of the 4th century. It was at one time ascribed to Arnobius as a part of his treatise *Adversus Gentes*; but Baldwin in a *Dissertation on Minucius*, shows that Minucius was the author. It has passed through many editions at Leyden and Cambridge, Eng., the latter containing numerous notes by Dr. Davis, and a dis-

sertation or commentary by Baldwin. It has been translated also into French and German.

MINUIT, MINUITS, or MINNEWIT, PETER, 1580-1641; b. Germany; a deacon in the Protestant or Walloon church in Wesel, who removed to Holland early in the 17th c., and after a residence there of some years received from the Dutch West India company the appointment of governor and director-general of New Netherland. He reached the seat of his government, Manhattan island, May 4, 1626, and proceeded to establish in permanency his tenure and that of the company by purchasing the island from the Indians, obtaining it for the sum of sixty guilders, about 24 dollars. He built fort Amsterdam, and defended the claim of the Dutch to rightful possession of the island with great courage and determination, while he administered the affairs of his office judiciously and to the general satisfaction of the colony, which advanced in power and prosperity. The fact that the patroons were successful in establishing titles to enormous tracts of land became objectionable to the Dutch West India company, who recognized the introduction of abuses in this course and placed the responsibility on the shoulders of gov. Minuit. In 1631 he was accordingly recalled by the company, and sailed for Holland in the following spring, but was driven into Plymouth, Eng., by a gale. Here a charge was set up against him of having prosecuted illegal trading within English dominions, and his vessel was attached on complaint made by the New England council. It required a protest from the ambassador of Holland in London to obtain the release of the vessel, and the discharge of the complaint; and this was not effected until the latter part of May. Minuit now made every effort to re-establish himself in the favor of the Dutch West India company, but without success, and at length offered his services to the government of Sweden for colonizing purposes. His proposition was favorably considered by the celebrated Oxenstiern, who was then chancellor, and through his influence a Swedish West India company was organized, and Minuit was commissioned by the queen to establish a Swedish colony in America. He accordingly gathered together sufficient Swedes and Finns for this purpose, and sailed for the port of Gothenburg, Sweden, in 1637, bound for the w. coast of Delaware bay, which point had been selected for the site of the new colony. He arrived in Chesapeake bay in the spring of 1638, and built fort Christiana, near where the city of Wilmington, Del., now stands. The Swedish colonization scheme was bitterly opposed by the Dutch, who threw every possible obstacle in the way of its success, and eventually captured the colony and annexed it to their possessions in 1655. But while it was under the direction of Minuit, during which time it was called New Sweden, the Dutch were unable to accomplish its absorption. Minuit died at fort Christiana.

MIOHIPPIUS. See HORSE, FOSSIL.

MIÖSEN, a lake in Norway, 36 m. n.e. of the city of Christiania, from which it may be reached by railroad. It is formed by the Lougen river, which empties into the lake at the little village of Lillehammer, and is 56 m. long and 12 m. in its greatest width. The scenery is very picturesque, and, as the climate of that part of Norway is most invigorating, the vicinity of the lake is very popular as a summer resort.

MIRACLES, ECCLESIASTICAL. The position of the reformed churches generally with regard to miracles is that they ceased in the church after the apostolic age, while the Romanists contend that the power to perform miracles has remained with the church and will continue forever. The arguments of the reformed are that when the work of the apostles was finished the necessity for miracles ceased, and that during the first hundred years after the death of the apostles we hear little or nothing of the early Christians working miracles. Bishop Douglas says: "I can find no instances of miracles mentioned by the fathers before the 4th century." In the 4th c. they speak of the age of miracles as past, and say that they were no longer to be expected. This is frequently asserted by Augustine, and Chrysostom testifies the same in his sermons on the resurrection and the feast of pentecost. And even when they relate remarkable deeds performed by Christian believers, and which the Roman Catholics pronounce miraculous, they declare them to be *natural* results. Bishop Douglas says that these wonderful workings were confined to "the cures of diseases, particularly the cures of demoniacs, by exorcising them; which last seems, indeed, to be their favorite standing miracle." Even prof. Newman, contrasting the scriptural and ecclesiastical miracles, says: "The miracles of Scripture are, as a whole, grave, simple, and majestic; those of ecclesiastical history often partake of what may not unfitly be called a romantic character, and of that wildness and inequality which enters into the notion of romance." Yet Butler says: "Roman Catholics, relying with confidence on the promises of Christ, believe that the power of working miracles was given by Christ to his church, and that it never has been and never will be withdrawn from her." And Bellarmine argues that the Protestant church, lacking this power, is manifestly not of God. Romanists refer to what Ignatius, of the 1st c. after Christ, relates of the wild beasts let loose upon the martyrs being restrained from hurting them, and to the miracle which prevented the apostate Julian from rebuilding the temple of Jerusalem. As to the first, Ignatius regarded the occurrence as wholly in the line of natural events. It is important to notice the fact that the writings of the ante-Nicene church are more free from miraculous and superstitious elements than the records of the middle ages, and especially of monasticism.

Dr Isaac Taylor remarks: "From the period of the Nicene council and onward, miracles of the most astounding kind were alleged to be wrought from day to day. But these miracles were, in *almost every instance*, wrought expressly in support of those very practices and opinions which stand forward as the points of contrast distinguishing Romanism from Protestantism, as the ascetic life, the supernatural properties of the eucharistic elements, the invocation of the saints, and the efficacy of their relics, and the reverence or worship due to certain visible and palpable religious symbols." Dr. Schaff makes the following remarks concerning the miracles of the Latin church: 1. Many of them have a much lower tone than those of the Bible, making a stronger appeal to our faculty of belief. 2. They serve not to confirm the Christian faith in general, but to support the ascetic life and many superstitious practices. 3. The farther removed from the apostolic age the more numerous they are. 4. Most of the church fathers allowed falsehood for the glory of God. 5. Several church fathers concede that in their time extensive frauds with the relics of saints were already practiced. 6. The Nicene miracles were doubted and contradicted even among contemporaries. 7. The church fathers contradict themselves sometimes respecting the prevalent faith in miracles, and again maintaining that miracles in the biblical sense had long since ceased. Yet Dr. Schaff remarks that a rejection of these miracles by no means charges intentional deception in every case, for between the proper miracle and fraud there are many intermediate steps of self-deception: clairvoyance, magnetic phenomena and cures, and unusual states of the human soul, which is full of deep mysteries. Constantine's vision of the cross, for example, may be traced to a prophetic dream, and the frustration of Julian's attempt to build the Jewish temple to a special providence or a natural historical judgment of God. A conclusive argument against many, at least, of these so-called miracles is that they are trifling and childish; others indecorous; others irreverent, and even blasphemous. Those contained in the Breviary and Roman ecclesiastical histories are too numerous to recite. Finally, it may be said that many distinguished Roman Catholic authors do not accept these as genuine miracles; even pope Gregory XI., who had been persuaded by the prophecies of St. Catharine of Sienna to return to Rome from Avignon, warning all on his death-bed to beware of human beings, whether male or female, speaking under pretense of religion the visions of their own brain, for by these, he said, he had been led away.

MIRACULOUS CONCEPTION, THE, denotes the supernatural formation of the bodily human nature of Jesus Christ from the substance of the Virgin Mary by the operation of the Holy Ghost. The proof by which this central article of Christianity is established was furnished, before the conception took place, by divine revelation to Mary herself and afterwards to Joseph her espoused husband. It is implied also by several particular declarations of Scripture and by its general teaching concerning the incarnate Son of God. It is the point from which is dated by most of the Christian theologians the union of the divine and human natures in the person of the Redeemer; and it gives completeness and consistency to the revelation concerning him. It exalts even his human nature by its immediately divine origin above that of the race to whom he was in all respects made like, yet without sin; and gives the necessary basis for the innumerable implications of the New Testament that his personal relation to the Father was unique in kind as well as degree. As a miracle, it accords with and is no more amazing than the miracle of his character. See **INCARNATION**; **JESUS CHRIST**.

MIRAFLORES, MANUEL DE PANDO, Marquis of, and count of Villapaterna, 1792-1872, b. Madrid. He was sent as ambassador to London in 1834, and to Paris in 1838. In 1846 he was president of the council of ministers, and filled the same office in 1863. He was ambassador to Vienna in 1861, and several times president of the senate. He wrote a number of works which are of value for the political history of Spain during the last fifty years. The most important is *Memoirs for the history of the first seven years of the Reign of Isabel II.*

MIRAMICHI' RIVER, the second largest river in New Brunswick. It is formed by the junction of its two branches, the n.w. and s.w. Miramichi. It flows, after a course of about 100 m., into the bay of Miramichi, a part of the gulf of St. Lawrence. Pine woods line the banks of the river, which is navigable for vessels of moderate size for a distance of 40 m. from its mouth.

MIR'AMON, MIGUEL, 1832-67; b. Mexico, of French extraction. He was educated at the military academy at Chapultepec, near the city of Mexico, and was one of the defenders of that stronghold against the American assault, Sept. 8, 1847, being wounded and taken prisoner. At the end of the war he was released, and filled his term in the academy. In 1852 he was regularly enlisted in the Mexican army, and two years later had gained the rank of capt. He was distinguished in several revolutionary engagements, and was promoted to be a col. in 1855. The existing political situation becoming reversed, and Alvarez being president, Miramon found his position in the army a very delicate one. Being sent on an expedition against the enemies of the new government, he rebelled on his own account, and turned his force over to the revolutionists, whom he commanded in a successful attack on Puebla. That city being besieged by order of Alvarez, Miramon defended it with remarkable skill and spirit on two occasions. It capitulated to an overpowering force in the latter part of 1856, and Miramon, having escaped, conducted

an independent fight until he was wounded and captured in the following year. He succeeded in obtaining his release, and continued to resist the government until Comonfort, who had succeeded Alvarez, retired from the presidency. The struggle now began which has passed into Mexican history as the "war of reform," in which Miramon was conspicuous on the side and at the head of the church party. Zuloaga had already succeeded Comonfort in the presidency, and on a new election Miramon was named as his successor, but declined. On the retirement of Zuloaga, however, he was appointed president *pro tem.*, when at the head of the army he continued the war against the liberals and Juarez. He was concerned in, and partly responsible for, the miserable massacre of Tacubaya in 1859. In the latter part of 1860 the liberals were successful, and Miramon fled the country. He traveled in Europe until the French intervention and the accession of Maximilian as emperor, when he received a diplomatic position abroad. In 1866 he returned to Mexico, and, with Marquez, was placed in command of Maximilian's army. He was captured May 15, 1867, and, with the emperor and gen. Mejia, was shot June 19.

MIRANDA, FRANCISCO, about 1750-1816; b. Caraccas, South America. He accompanied the French forces in their campaign in aid of American independence, then returned to South America and attracted attention by endeavoring to incite a revolution among the Spanish troops over whom he was col. He was compelled to flee, however, and next traveled in Europe, where he obtained the friendship particularly of the Russian empress Catherine II., William Pitt, and leaders in the French revolution. While in Paris, in 1790, the Girondists appointed him a maj.gen., and he attended Dumouriez in his campaign against the Prussians. Though he was a skillful commander, the forces under his command met with little success; and a defeat at Neerwinden was attributed to his treachery, a suspicion that caused his arraignment before the revolutionary tribunal. After the fall of the Girondists he was threatened with transportation, and fled to England. In 1803 Napoleon banished him again, and he visited New York, where he obtained assistance in a second attempt to overthrow the power of Spain in South America. Two vessels were fitted out for him, and he sailed for South America in 1806. But the undertaking came to nothing, and it was not until 1810 that he succeeded in gaining a triumph, and compelled the subjugation of Valentia, Puerto Cabello, and nearly the whole of New Granada. This lasted a year. The Spanish monarchy then gained the ascendancy; Miranda was forced to surrender; and, in violation of the conditions, he was sent to Spain, where he died in the dungeons of the inquisition.

MIRANDOLA, PICO DELLA. See PICO, GIOVANNI DELLA MIRANDOLA, *ante*.

MIRBEL, LUZINSKA AIMÉE ZOË RUE, 1796-1849; b. at Cherbourg, France. Most of her life was spent in Paris, where she married in 1820 the celebrated naturalist, Charles François Brisseau Mirbel, and won a high reputation as a miniature and portrait painter.

MIRÈS, JULES, 1809-71; b. in Bordeaux, of Jewish parentage. He opened in Paris as a broker, became director in a gas company, and in 1848 purchased the *Journal des Chemins de Fer* in company with Moïse Millaud. They afterwards purchased the *Conseiller du Peuple*, the *Constitutionnel*, and other journals; then founded the *Caisse des Chemins de Fer*, or railway bank, and, by means of all these agencies skillfully employed, acquired great fortunes. In 1860 Mirès negotiated a Turkish loan. In 1861 he was arrested for fraud and condemned to five years' imprisonment and a fine. Appealing from the first decision to the imperial court the judgment was confirmed; the court of cassation set it aside; but on a second trial before the same court the judgment was finally affirmed, and Mirès served in the penitentiary till 1866, when he returned to Paris, resumed banking, and published *Un Crime Judiciaire*.

MIRIAM (Gr. *Mariam*, Lat. *Maria*, Eng. *Mary*), the sister of Moses, the leader and law-giver of the Hebrews. She is presumed to be the sister who watched him when an infant concealed in a basket on the banks of the Nile. On occasion of the deliverance of Israel from Pharaoh and his host at the Red sea, she led the Israelitish women forth with music, taking up in response the song of Moses, and enjoining her followers to "Sing to the Lord." She is styled Miriam the prophetess, and in the book of Micah is classed with Moses and Aaron in the words, "I sent before thee Moses, Aaron, and Miriam." She seems, however, to have been the instigator as well as a sharer in the rebellion of Aaron against Moses on occasion of the coming of Moses's wife to the camp, as the whole punishment was visited upon her. She died, and was buried in the first month after the 40th year of the Exodus, at Kadesh-barnea, where her sepulcher was still shown in the time of Eusebius.

MIRKHOND', 1433-98; b. Persia; the author of a voluminous work relating to Persian history, entitled *Garden of Purity in the History of the Prophets, Kings, and Caliphs*, of which there are manuscripts in the libraries of London, Paris, Berlin, and Vienna. Besides the fragments in Wilkins's Persian grammar, portions of the work have been published in Persian and Latin in *The History of the Persian Kings*, by the German scholar Jenisch; also, in Silvestre de Sacy's *Mémoires sur diverses Antiquités de la Perse*, in Jourdain's *Notice de l'Histoire Universelle de Mirkhond*, and in English by David Shea under the title of *History of the Early Kings of Persia* (London, 1832).

MISDEMEANOR (*ante*), in the United States, is such a criminal act under common law or statute as is not included in common law or statutory felonies and is not treason. The term does not include, in its legal application, offenses against police regulations, city-by-laws, and the like, though in common language it may extend to any misbehavior. It is evident that what is a statute-felony in one state may be a misdemeanor in another, and it is therefore impossible to give a complete classification of such offenses. They may be crimes against public justice, peace, health, or trade; against personal or property rights of individuals; or may be mere attempts and solicitations. Bouvier defines the word as applied to "all those crimes and offenses for which the law has not provided a particular name. Sometimes, but in this country rarely, the term *misprision* is used to include all higher classes of misdemeanor. Misdemeanor may be punished by trial brought either after indictment or information—that is, presentation by either a grand jury or a public prosecutor; and in most states the rule prevails that where felony is charged in the indictment but the evidence proves only an offense amounting to misdemeanor, conviction may be had of the latter.

In some states it is provided that upon acknowledgment of satisfaction by the injured party, in such cases as assault and battery or malicious mischief, the criminal procedure shall, with the consent of the magistrate, be dropped; a course which, obviously, would be improper in dealing with felonies.

MISHAWAKA, a village in n. Indiana, a part of the township of Penn, on the s. bank of the St. Joseph river, navigable to this place, and furnishing good water-power; pop. '70, 2,617. It is 4 m. e. of South Bend, and 11 m. w. of Elkhart, and has a station on the Northwestern Grand Trunk railway, and the Lake Shore and Michigan Southern. It has excellent public schools, 7 churches, 1 bank, water-works, and important industries, comprising the manufacture of flour, axes, refrigerators, wind-mills, pumps, brushes, furniture, agricultural implements, etc., and a variety of stores.

MISNIA. See **MEISSEN**, *ante*.

MISNOMER, an instance of erroneous or erratic nomenclature, often proceeding on the *lucus a non lucendo* principle, as in the case of the so-called "German silver," which is not silver, was not invented or discovered by a German, and was in use in China ages ago. Among the large number of expressions which may be called misnomers the following are in common use in the English language: Black-lead, which is compounded of carbon and iron; blind-worms, which are not blind; Brazilian grass, which is not grass, but strips of palm-leaf, and comes from Cuba and not Brazil; Burgundy pitch is not pitch, but is prepared from frankincense and comes from Hamburg; catgut is the gut of sheep, instead of cats; china, applied to porcelain, whether English, French, or of other countries; cuttle-bone, which is not bone, but a chalky deposit contained in a sac occurring in the body of the cuttle-fish; Cleopatra's needle, which was erected by Rameses the great, and had no reference to Cleopatra; Dutch clocks, made in Germany instead of Holland; galvanized iron is not galvanized, but coated with zinc in a bath of muriatic acid; Gothic architecture was not the architecture of the Goths, but originated in England and France at a period prior to the renaissance; Indians (North American), applied to the aborigines of America by the early voyagers, who supposed that country to be a part of India; Irish stew, a dish unknown in Ireland; lacquer, which is made not from lac, but from a resin obtained from a nut-tree (*anacardiaceæ*); kid gloves, which are made of lamb, sheep, or rat skins; lunar caustic (nitrate of silver), so called because silver is the astrological symbol of the moon; meerschaum (foam of the sea), which is a compound of silica, magnesia, and water; pen, from the Latin *penna*, a wing, referring to the quill, becomes inappropriate when applied to a fabrication of steel or gold; Pompey's pillar was not erected by or in honor of Pompey; rice-paper, which is made not from rice, but from the pith of a Chinese plant of totally different character; salt, which is not chemically a salt; scuttle, applied to opening a hole in a ship, really means to close or bar; sealing-wax, which is not wax, but is composed of shellac, turpentine, and cinnabar; slave, which originated in a word (slavi) meaning illustrious, noble; tube rose, which is not a rose; turkeys, which did not originate in Turkey, but in North America; whalebone, which is not a bone.

MISPICK'EL, a mineral that occurs in trimetric crystals and which is composed of 33.54 per cent of iron, 33.42 per cent of arsenic, and 21.08 per cent of sulphur. Its color is silver-white, inclining to steel-gray; its hardness, 5.5 to 6; and its specific gravity, 6 to 6.4. Heated in a tube, it first yields a red or brown sublimate of sulphide of arsenic, then a black sublimate of metallic arsenic. Nitric acid decomposes it, with separation of sulphur and arsenious acid; nitro-muriatic acid, with separation of sulphur alone, which may be completely dissolved by prolonged digestion. It is found principally in crystalline rocks, especially associated with silver, tin, lead, and zinc ores; and is used chiefly in the manufacture of white arsenic.

MISSAL (*ante*), Lat. *missale plenarium* or *plenarium*, the book which contains the ritual for the celebration of the various masses of the Roman church, was called in the early western church *sacramentarium*, but at that time it contained only parts of what is now included in the missal. Those copies which contained the gospels, the sacramentary, prayers, prefaces, benedictions, the canon, lectionary, epistles and the antiphon

were called *plenars*; but commonly these parts of the missal were in separate volumes. The entire missal was required when the priests began to say low masses. The earliest Gothic or Gallican missals of the 6th c. contained only the canon, prayers, and prefaces, which were recited by the bishop or priest; afterwards, those of small churches had the introit, gradual, alleluia, offertory, sanctus and communion. To meet a general desire for an emendation of the missal it was decided by the council of Trent, after a protracted discussion, to recommend to the pope the reform of the breviary, missal, and rituals. He consented, and the work was begun in Rome under Pius IV., and finished under Pius V. in 1570. The new missal consists of an introduction, three parts, and an appendix. The introduction gives the calendar and the general rubrics; the three parts give the formularies for the successive services of the year, those for the celebration of the mass on special feasts of saints, etc.; the appendix gives the annual mass, masses for the dead, some benedictions, and masses for certain prescribed feasts.—In the English church before the reformation the missals were very different, and even after the compilation of the Roman missal, the English were generally used; but at the end of the 16th c. the Jesuits forced the Roman missal upon the Roman Catholic churches of England. Before the invention of printing, the missals were elegantly written, ornamented with beautiful initials, and superbly bound. In the 13th c. large letters were used in writing the missals.

MISSAUKEE, a co. in central Michigan, drained by Clam lake, Muskrat lake, and the headwaters of the Muskegon, Manistee, and Clam rivers; 576 sq.m.; pop. '80, 1553—224 of American birth. Its surface is considered fertile, is generally level, with a large proportion of timber land, and very thinly settled. Capital, Lake City.

MISSINNIPPI RIVER. See CHURCHILL RIVER, *ante*.

MISSION, a term used by Roman Catholics and English and American ritualists in a sense similar to the word *revival*. Among Roman Catholics a mission consists of special religious services conducted generally by one who has no parish, and belongs to a monastic order. In this sense the word is modern. In the church of England and the Protestant Episcopal church in the United States the word denotes "a series of services in which prayer, praise, preaching, and personal exhortation are the main features, and is intended to call souls to repentance and faith, and deepen the spiritual life in the faithful." It is held in a parish or several parishes under the direction of the rector, or by some experienced priest whom he obtains to assist him. "Its themes are heaven, hell, the judgment, sin, the atonement for sin, God's justice and God's mercy." "The purpose is the proclamation of the old foundations of faith and repentance to souls steeped in worldliness and forgetful of their destiny, whether they be the souls of the baptized or the unbaptized." The usual time for the "mission" is Lent. In England it has been a custom for several years, and is approved by the bishops, who prescribe no rules for its observance, but leave it to the good judgment of the clergy. It is not yet favored by many in the Episcopal church in the United States. In these services the prayers are, or at least may be in part, extemporaneous; much preaching is allowed, and the preaching is earnest, personal, and practical; familiar hymns and tunes are used, and the singing is congregational. *The Church Journal and Gospel Messenger* favors the "mission."

MISSIONS, CHRISTIAN, FOREIGN (*ante*). The foundation of the work of missions is the command of Christ given to his disciples immediately before his ascension, "Go ye into all the world, and preach the gospel to every creature." Tracing the apostles and early Christians in their fulfillment of this command, we find at the close of the 1st c. many large churches in Asia Minor, Macedonia, Italy, Greece, and the islands of the Mediterranean, and in Northern Africa. In the beginning of the 2d c. the persecutor Pliny, in his official report to the emperor Trajan, says: "Many persons of every rank are accused [of Christianity]. Nor has the contagion of this superstition pervaded cities only, but the villages and open country." Justin Martyr, A.D. 106, says, "There is not a nation, Greek or barbarian, among whom prayers and thanksgivings are not offered to the Father and Creator in the name of the crucified Jesus." Tertullian, in his "Apology" about the middle of the 2d c. says, "Though of yesterday, we have filled every sphere of life—the exchange, the camp, the populace, the palace, the forum." Such an extension of Christianity in the face of stripes, imprisonment, and death, speaks strongly for the missionary zeal of those early times. During the 2d and 3d centuries we find that missionaries have been successful in Gaul, southern Germany, Arabia, and Ethiopia. Early in the 4th c. Constantine, constrained by the prevalence of Christianity among all classes of his people, immediately subsequent to the terrible persecution by Diocletian, published, A.D. 312, his edict of toleration throughout the Roman empire. There is evidence that the Nestorians began in the 4th c. and for a thousand years carried on missions in central and eastern Asia. But no missions were more successful in these early times than those from Ireland to continental Europe in the 5th and 6th centuries. In the 5th c., the gospel was preached in Ireland by Patrick, who, born of Christian parents, and instructed in the gospel, having been twice taken captive by pirates, and carried to Ireland as a slave, felt impelled, after escaping the second time, to return to the land of his bondage, and make known there the gospel. He preached with such power that the island became nominally Christian before his death. Born in France, or in Scotland, he was ordained in France; he seems to have had no close attach-

ment to the Roman church; and his successors long resisted the efforts of the pope to bring them under control. He established schools for educating the people in the gospel, and for training a native ministry and missionaries. At his death there were in Ireland many of these institutions, from which missionaries went forth in the 6th and 7th centuries to evangelize the barbarians of central Europe. Here also they established many schools, one of which was at Erfurt, where Luther studied centuries later. Columba went in the 6th c. from the institution of Bangor, Ireland (sometimes confounded with Bangor in Wales), with 12 associates, founded the celebrated school in Iona, which attained a high reputation for biblical studies, and from which missionaries went to the northern and southern Picts of Scotland, to the eastern coast of England, and to the European continent. Columbanus from the same institution took 12 young men, and carried the gospel to the Burgundians, Franks, Swiss, and Italians; also to the Bavarians and other Germanic nations. His pupil Gallus, also an Irishman, was the apostle of Switzerland. Neander says that when Columbanus entered Germany at the close of the 7th c. it was almost wholly heathen, but before 720 the gospel had been proclaimed by himself and his countrymen, and "all the German tribes were obedient to the faith as taught by the Irish missionaries." "Their teachings," as shown by Ebrard, "consisted in reading the Scriptures in the original text, translating them wherever they went, expounding them to the congregations, and recommending their diligent perusal. These were their only rule of faith." These missions and institutions were in the 8th c. absorbed by the Roman church, and in the 12th c. the Irish clergy were subjected to its sway. Iceland, Christianized in the 10th c., sent out missionaries in the exploring ships of the Norsemen, and is believed to have carried the first knowledge of Christ to the Greenlanders in the 12th century.

Returning to the Roman empire we find that the cessation of persecution, though most just and beneficent, opened the way for evils which hitherto had lacked opportunity of development. The state having become reconciled to the church, the church in turn became reconciled to the state, caught its spirit and imitated its modes. Christ had said to his disciples, "The princes of the Gentiles exercise authority, but it shall not be so among you." The church lost sight of this, and pastors, who had hitherto served the flock, and won honor by their service, began to change the crook into the rod. Not at once, or rapidly, but gradually the spirit of domination grew. Those who gained power sought to extend it by increasing the number of nominal converts, and proselytism rather than conversion became the passion of the time. Gregory the Great in 596 sent Augustine with 40 monks to effect the conversion of the Anglo-Saxons. The Irish missions from the school of Iona had already introduced the gospel along the eastern shores of England. Ethelbert, king of Kent, had married a Christian princess, and yielding to the eloquence of Augustine, or the persuasions of his wife, was baptized. Many of his subjects followed his example, 10,000 being received into the church on one occasion. Augustine was made archbishop, and claimed to govern the older Christian churches, as well as his own converts. Those churches indignantly objected, saying, "We are all prepared to hearken to the pope of Rome and to every pious Christian, so as to manifest to all perfect charity. What other duty we owe to him whom you call pope, we do not know." The influence of Augustine with the Saxon kings, however, gave him the advantage in the contest, and before the Norman invasion few ventured to dissent from the Roman forms of worship. In 718 Gregory II. sent Boniface to Germany, not so much to convert heathen as to bring over to the Roman see the churches which had received the gospel through missionaries from Ireland, Burgundy, and Byzantium. Thenceforward the secular arm was often used for the extension of the faith, and where power was lacking for coercion, resort was often had to other measures which were at utter variance with the spirit of Christianity.

Before the close of the 14th c. not only was nearly all of Europe nominally Christian, but Mongolia, Tartary, Persia, and China had been visited and greatly influenced by bishops and friars sent out from the Roman Catholic church. The discovery of America in 1492 and the doubling of the cape of Good Hope opened the way for missions in new fields. The Spanish and Portuguese prosecuted their voyages of discovery, of traffic, or of conquest, taking with them missionaries authorized to effect the conversion of the natives. Mexico, Central and South America, and parts of India were among the countries thus visited. The institution, in 1530, of the order of Jesuits, who pledged themselves to go wherever the pope might send them, gave a great impulse to missions among the heathen. In Brazil, Peru, and New Granada, Jesuits, Franciscans, Dominicans, and Augustinians vied with each other in civilizing the wild tribes. In Mexico and California, as well as in the Portuguese possessions in India, the Jesuits were equally diligent. The inquisition was resorted to not only to restore heretics but to enforce conversion. It has been common for the Roman Catholic church to shield itself from blame in this respect by saying that it gave over the incorrigible to the secular authorities for punishment; but it is well understood that the secular authorities were under the control and did the bidding of the church. It is believed that in these days the church of Christ is learning again the spirit of Christ, and that persecution, formerly not unknown in any sect of the church, will hereafter be left to heathen powers.

In 1608 the French established prosperous missions among the Indians of North America. In the 16th, 17th, and 18th centuries unsuccessful attempts were made to bring

into the Roman Catholic church the Christian church of Abyssinia, which for more than 1000 years had maintained an independent existence. At last, in 1859, the king of Tigré in Abyssinia, with 50,000 of his subjects, united with the church of Rome. The Roman Catholics now have considerable missions in China, Anam, India, in Senegambia, Natal, and among the Gallas in Central Africa, in some of the islands in Polynesia, and among the Indians of North America.

In beginning an account of Protestant missions it is proper to allude to the sending of 14 pastors from Geneva by Calvin in 1555, at the request of Nicholas Durand, to join the colony of French Protestants whom he had persuaded to accompany him to Brazil. Durand joined the church of Rome, put to death three of the Genevan teachers, and drove others back to Europe, the Portuguese massacring the remaining colonists. In 1559 Gustavus Vasa of Sweden established a mission among his subjects in Lapland, which was maintained for some years. The Protestant settlers of New England had, according to their own account, for one of their aims in coming to this country, "above all, that of extending the Redeemer's kingdom in lands where Christ is not named." The charter granted to the Plymouth colony by the king recognizes this "worthy disposition" of the petitioners, and thanks God for the privilege of engaging in "so hopeful a work" as the "conversion of savages" to "civil society and the Christian religion." In 1621 elder Robert Cushman, writing to England, reports the Indians as favorably disposed to religion and humanity, and some of the natives giving evidence, living and dying, of conversion to God. The charter given by Charles I. in 1628 to the Massachusetts colony declares that "to win the natives of that country to the knowledge and obedience of the only true God and Savior of mankind and the Christian faith, in our royal intention and the adventurers' free profession, is the principal end of the plantation." The seal of the colony had as its device the figure of an Indian with a label in his mouth, on which was inscribed the Macedonian cry, "Come over and help us!" This object was kept in view, though the settlers were harassed by the hardships and struggles incident to their condition, and, as circumstances allowed, carried out in the lives of those first settlers, and it bore fruit in the Christian walk of converts. In 1643 Thomas Mayhew began labors among the Indians of Martha's Vineyard and Nantucket, and five generations of that family furnished pastors for the churches so gathered. In 1646 the legislature of Massachusetts passed an act for the propagation of the gospel among the Indians, and the same year the celebrated John Eliot began to labor among them. In 1649 the society for propagating the gospel in New England was formed in England, which aided in the support of Eliot, Mayhew, Bourn, and other missionaries among the Indians. A settlement of praying Indians was soon formed, and a church organized in Natick in 1661. Eliot traveled extensively among the Indians, and once preached the gospel to the famous king Philip of Pokanoket, who rejected it with disdain. He translated the Bible and other Christian books. His translation published in 1663 was the only Bible printed in America before the revolution. In 1675, through the labors of Eliot and others, 14 settlements of praying Indians had been formed, and 24 regular congregations, and there were as many Indian preachers. The converts adopted civilized and Christian modes of life, and became industrious and virtuous citizens. In 1733-45 Mr. Parks labored among the Indians of Rhode Island. They abandoned their dances and drunken revels, and crowded the places of worship. Sixty were received to the church. In 1734 Mr. J. Sargent, resigning the office of tutor in Yale college, labored with the Mohegans till his death in 1749. He found them "living viciously in miserable wigwags; he left them settled in a thriving town at Stockbridge with good houses." The great and good Jonathan Edwards labored 6 years among them. From 1734 to 1782 the Moravians labored with great patience and self-denial for the Indians in various parts of Pennsylvania, New York, and Connecticut. Of these missionaries count Zinzendorf, Christian Henry Rauch, and David Ziesberger are worthy of special notice. Many converts were made. From 1743-47 David Brainerd lived a martyr-life among them, teaching and converting many. The Rev. William Tennent, also John Brainerd, and a converted Indian, Samson Occum, and many others worked earnestly and successfully. The French and English war came, and the war of the revolution. The Christian Indians took no part in these, and were consequently suspected by each party of secretly sympathizing with their enemies. They suffered much from the belligerents, their settlements being broken up, their villages and farms destroyed. Reports of the work among the Indians excited great interest in England, and funds continued to be raised for its advancement. Dr. Luesden informed Cotton Mather that the example of New England awakened the Dutch to seek to convert the heathen in their East Indian possessions. Referring to it, bishop Burnet says: "The church of England, moved by the example of the dissenters, whose labors they admired, formed the society for promoting Christian knowledge." Some members of this society in 1701 formed the society for the propagation of the gospel in foreign parts, which was sanctioned by William III. It began mission work in India in 1727, and has had missions in Delhi, Poona, Ahmednuggur, Kolapore, the Nizam's dominions, Bangalore, Cuddalore, Tinnevely, Arcot, Madras, Madura, and Calcutta. The mission of this society in Tinnevely district has had great success in recent years, 23,654, from July, 1877, to the end of June, 1879, having asked Christian instruction. In 1879 this society had 569 ordained missionaries, 578 native catechists, 212,051 baptized persons, 41,413 communicants.

In 1705 Frederick IV., king of Denmark, sent Ziegenbalg and Plutschau to Tranquebar, on the Coromandel coast, to convert his heathen subjects. So averse were the natives to having foreigners acquire their written language that the king put their teacher in prison, and loaded him with chains. Ziegenbalg himself was imprisoned four months. Persevering amid great discouragements the converts at his death numbered 355. In 1711 the translation of the New Testament into Tamil was finished. Grundler, Schultze, and Dahl continued the work after Ziegenbalg's death; and the rajah of Tanjore, who had forbidden Ziegenbalg to enter his territory, was so won by their consistent lives that he threw open his kingdom to the gospel. The work was, however, retarded by the wars of the English and French between themselves and with the native princes; and the immoralities of European residents and travelers prejudiced both Hindus and Mohammedans against Christianity. In 1728 Schultze removed to Madras and formed the Vepery mission. In 1750 Christian Frederick Schwartz arrived in India. He labored 48 years at Tranquebar, Trichonopoly, Tanjore, and in Ceylon. During 10 years in Trichonopoly he baptized 1238. The simplicity and earnestness of his life won the confidence and respect of heathen and Mohammedan princes. The English government sent him to negotiate a treaty with the haughty and powerful Hyder Ali. Hyder had said: "Let them send me the Christian; he will not deceive me." When near death the rajah of Tanjore committed to his guardianship his adopted son and heir, Serfogee. Serfogee, when king, erected a monumental slab to the memory of Schwartz in the church where he had been wont to preach, in which groups of children and native men, and Serfogee himself, are represented as mourning his death, while he is depicted as looking at the cross.

In 1708 a Danish mission was sent to Greenland. In 1709 the Society for promoting Christian knowledge was formed in Scotland, and by it David Brainerd was sustained among the Indians. Through the influence of Hans Egede, Frederick IV., of Denmark, established a seminary at Copenhagen to train missionaries for Greenland. It was here that count Zinzendorf was first impressed with the duty of spreading the gospel, and when he returned to Hernhutt the Moravians seemed at once inspired with a wonderful zeal in the cause of missions. They looked upon it as the great business of the church, and claimed that every member should contribute to its support. One in 50 of the entire membership devoted themselves to labor in the foreign field. From 1732 to 1853 they had stations in the West Indies, Greenland, among North American Indians, and in Labrador, South America, Australia, and Thibet; and the whole number of missionaries engaged during those years was 2,300, exclusive of native assistants. In 1879 they reported 99 stations, 324 missionaries, 1485 native helpers, 24,439 communicants, 13,856 baptized adults, and an income of \$91,715.

In 1789 William Carey, a Baptist minister, endeavored to reawaken in England an interest in the subject of missions to the heathen, but it was not till 1792 that a society was formed, which sent Carey and Thomas to Calcutta. The East India company forbidding their going in the company's ship, they left it and went in a Danish vessel. Obligated for a time to support themselves by superintending an indigo factory, they preached and taught among the native employes and in the neighboring villages. Marshman and Ward also were sent, but, owing to the hostility of the company, were obliged to proceed to the Danish settlement at Serampore, where the Danish governor, who had previously enjoyed the ministry of Schwartz at Tranquebar, gave them and Carey also his protection. In 1816, 700 natives had been baptized, and 10,000 children had received Christian instruction. The same society in 1797 established a mission in Dingapore, another in 1804 in the Jessore district; also in Chittagong, in Dacca, in Bاریsal (where in 1873 there were 4,600 converts and 40 native teachers and preachers), in Agra, Allahabad, Benares, and Delhi. In the mutiny of 1857 two missionaries and their families at Delhi were massacred, but after the siege the mission was renewed, and made great progress. The society sent missionaries to the West Indies and Africa. The missions in Jamaica have become self-supporting since 1842. It has missions also in Norway, Italy, and China, and reported, in 1878, 86 European missionaries, 40 native missionaries, 205 evangelists, 112 stations, 29,496 church members, 348 teachers, 15,079 scholars, and an income of \$250,344. The *General Baptists* formed a distinct society, sent a mission to Orissa, India, in 1822; and in 1878 had 7 stations and 5 branch stations, 14 European agents, 15 native preachers, 884 members, and an income of \$42,000. They have now begun a mission in Rome.

The London missionary society was formed in 1795. Their mission in the Society islands, established 1797, was without apparent success until, in 1816, king Pomare II. embraced Christianity. In 25 years the islanders had relinquished idolatry and cannibalism, had learned to read, had made great improvement in social habits, and many of them lived the Christian life. French Catholic priests reached the islands, but were not allowed to remain. The islands were soon after this seized by the French government in the interest of the Roman Catholic missionaries. In 1807 this society sent Dr. Morrison, the first Protestant missionary, to China, who translated the New Testament and, with the aid of Dr. Milne, the Old Testament into Chinese. It established missions also in the Indian archipelago, in Mauritius, in Southern Africa, where Moffat for 52 years with great success taught Christianity and civilization, beginning in the kraal of Africander and extending his labors to several native tribes, and where Livingstone began

his unprecedented career as a missionary and explorer. Their missionaries sent in 1820 to Madagascar were the instruments of introducing Christianity there. They were expelled for a time, but the "praying ones," as the converts were called, continued to increase during their absence, notwithstanding a terrific persecution in which the queen is said to have slaughtered as many as 2,000 of her best subjects in a single year on account of their adhesion to Christ. After her death the missionaries were invited to return, and religious liberty was enjoyed. Half a million of people have renounced idolatry, and 60,000 have confessed Christ. In 1880 this great society had 136 ordained European missionaries, 371 ordained native ministers, 4,529 native preachers, 89,487 communicants, 339,898 native adherents, 75,914 pupils. Its missions are in China, India, Madagascar, Africa, West Indies, and Polynesia.

The Church missionary society was formed in 1799. Finding none in England to engage in the work, they for a time employed Germans. William Wilberforce was one of its warm supporters, and its first mission was naturally to the west coast of Africa. It had to struggle against the intrigues of the slave-traders and a most unpropitious climate, but after the transfer of the colony to the government of England the Sierra Leone mission became stable and successful. Their mission in the Tinnevely district has received great accessions within two or three years, 11,000 heathen having sought instruction preparatory to baptism in 1878. The society had in 1878, 181 stations, 203 European ordained missionaries, 11 East Indian, 170 native do., 2,183 native male assistants, 497 female assistants, 27,080 communicants, 123,724 Christians baptized, 1499 schools, 57,145 scholars. It has a missionary institution at Islington.

The Wesleyan Methodists engaged in mission work as early as 1786, when Dr. Thomas Coke went to the West Indies. In the conduct of missions there and in America he crossed the Atlantic 18 times. He died in 1813, on his way to the East Indies for the purpose of establishing a mission. His five companions of the voyage began a mission in Ceylon, which afterwards extended its labors to the continent. There was no regularly organized Wesleyan missionary society until 1817. It has since carried on missions in Spain, Portugal, Africa, India, China, Australia, in the Fiji Islands, where "cannibalism, war, and murder ceased wherever they penetrated," and in the Friendly Islands, where the once hostile tribes are united under the native convert king George, who is Christian preacher as well as king, and among the negroes of the West Indies, where they have been very successful. This society has 429 stations, 457 missionaries and assistant missionaries, 9,882 catechists, local preachers, and teachers, 86,770 full church-members, 92,924 scholars.

The church of Scotland formed a missionary society in 1824, and began its work in 1829 by sending Dr. Duff to Calcutta, who with his schools made a powerful impression on the native young men of that city. At the disruption of the Scotch church its missionaries joined the Free church. The State church of Scotland has missions at Calcutta, Madras, Sealeote, Darjeeling, and Bombay, with an income of \$51,000. The Free church of Scotland has missions in India, South Africa, Australia, and Syria, and among the Jews at different points, their school in Constantinople having 200 pupils. It has 45 Europeans and 196 natives employed in mission work, 2,163 communicants, 11,086 pupils, and an income of nearly \$100,000. The United Presbyterians of Scotland have 48 missionaries and 8 medical missionaries in the West Indies, Spain, Old Calabar, South Africa, India, and China; 6,927 communicants, and an income of \$190,000. The Presbyterian church of Ireland had in India and China in 1879, 8 missionaries, 11 native evangelists, 236 communicants, 1082 baptized natives, and an income of \$73,755. Many other societies in Great Britain, local or limited in sphere, do very useful work.

The missionary interest in the United States during the 17th and 18th centuries had been expended in efforts to Christianize the Indians, and evangelize its own wide newly-settled regions. In looking for the origin of the foreign missionary work in America we find three young men in Williams college withdrawing one summer afternoon in 1807 to a retired field, telling each other their impressions concerning the condition of the pagan nations, and kneeling there to implore divine direction as to their duty. They converse privately with ministers on the subject, sometimes venturing to allude to it in a prayer-meeting. In 1810 they with others unite in an appeal to their "revered fathers" of the general association (Congregational) at Bradford, Mass., who, recognizing their impressions as a "divine intimation of something great and good in relation to the propagation of the gospel," proceeded to constitute the American board of commissioners for foreign missions. Its first missionaries to foreign lands were Newell, Judson, Hall, Nott, and Rice; all of whom were, on their arrival at Calcutta, ordered by the East India company to return in the vessels which brought them. Judson and Rice having on shipboard changed their views in regard to baptism, united with the Baptists and left the American board. Hall and Nott went to Bombay, and were ordered to return, but after much discussion and negotiation with the East India company and the home government were allowed to remain. Thereafter India was open to American missionaries. Newell on being sent from Calcutta went with his wife to the Isle of France, where she died. He went ultimately to Bombay. In the East Indian field the American board has since conducted with success missions in Ceylon, Ahmednuggur, Madras, and Madura. In 1817 the Rev. Cyrus Kingsbury commenced labor among the Cherokees. The work was extended to the Choctaws, Chickasaws, Creeks, Seminoles, Dakotas,

Sioux, Ojibwas, Ottowas, Iroquois, Cayugas, Walla-Wallas, and Nez Percés. Between 1817 and 1860 the American board expended among the Indians \$1,100,000, and the laborers employed were more than 500. Other societies have done much. The work has been greatly thwarted by successive removals of the tribes, the sale among them by government agents of intoxicating liquor, and prejudice awakened by the fraudulent dealings of white men. Yet some of these tribes are recognized as civilized communities, and compare favorably with the white people about them. Ten thousand of the Indians are members of Christian churches, and 75,000, including women and children, conform to the customs of civilized life. In some instances, while Christians were turning their thoughts towards foreign lands, events in those lands were preparing the people for the coming of missionaries. Vancouver in his four visits to the Sandwich islands had given the people some thoughts on the folly of idolatry, and had told them that missionaries would some time come to teach them, to whom they must listen. Kamehameha I. was so far influenced that in his last sickness he forbade the customary offering of human sacrifices. Reports reached the people of the cessation of idolatry in the Society islands and of the great improvement in the condition of those islanders. Five Sandwich Islands youths who had gone with American shipmasters to America were receiving a Christian education, and one of them had written to his father describing the advantages of the Christian religion. The people also had become restive under the restrictions of the *taboo* system, and had noticed that foreigners incurred no risk by their non-observance. The mother of the new king Liholiho first broke taboo, and many of the chiefs, and at length the king, did so also, and afterwards destroyed the idols. It was the presence of the Sandwich Islands youths in America that induced the American board to send a mission to those islands; and in 1820, when the people were breaking taboo and burning idols, the missionaries, wholly uninformed of these events, were on their way from Boston. They found a nation open to instruction. The details of the work among them are of remarkable interest, and those islands are now, in the usual sense of that term, a Christian people. There are now 12,360 members in 57 churches, most of them having native pastors.—In 1820 the American board began mission work in Turkey, sending Parsons and Fisk to Smyrna. In 1831 Goodell, having carried an Armeno-Turkish translation through the press at Malta, reached Constantinople. A succession of able laborers, male and female, have continued the work to the present time through numerous cities and villages of both European and Asiatic Turkey. In 1827 the Maronite patriarch, in his decree of excommunication against the missionaries, by which the people were forbidden to deal with them in any way, stated that “they are unwearied in their efforts;” that “they go about, manifesting a zeal in compassionating their neighbors;” that “they have opened schools and supplied instructors, all at their own expense;” that “in their outward works they appear as men of piety;” and that “the evil grows day by day.” This truly, though inadequately, describes the work and the workmen for 60 years past; and though there has been much persecution, the results are equal to the work. Christopher R. Robert, a merchant of New York, erected a college in Constantinople and left property to sustain it. It has 250 students, of 13 nationalities. The native converts of Aintab have contributed largely towards founding a college which is in operation in that city. There are four theological seminaries in Marsovan, Kharpout, Marash, and Mardin. Though the work has been directed chiefly towards the regeneration of various lapsed Christian sects, yet there is abundant evidence that indirectly thousands of Mohammedans have been convinced that there is a Christianity, which makes man kind and true, though it would be death to them to adhere publicly to it. They listen often to Christian preaching, their children attend the schools, and individually they sometimes show great enlightenment; but very few Mohammedans have dared to take a stand on the side of Christ. It is the view of the missionaries to “increase knowledge and conscience, to inculcate saving truth, to promote piety, and to leave forms and ceremonies, however vain and hurtful, to be disposed of by the people themselves when they should become Christians at heart.” The trials and exposures undergone in caring for the sick and wounded during the recent Russo-Turkish war, and in distributing to the hungry in the famine, made a deep impression on the people. Throughout the Turkish empire, “despite oppression, misrule, and anarchy,” says the last annual report of the American board, “the heaven of the gospel is doing its work.” Of the agencies involved we may note the existence of 93 churches, with 6,500 members; nearly 500 pastors, preachers, and teachers; 30 colleges, seminaries, and high schools, attended by 1500 youth of both sexes in nearly equal numbers; 300 common schools, with over 9,000 pupils; and an educational and religious literature amounting in the past year to 13,000,000 pages.—In 1830 the rev. Jonas King entered the service of the American board as its missionary in Greece. He was already on the ground, having been sent by the ladies’ Greek committee of New York with relief for the suffering in the struggle for independence. Dr. King preached the gospel in the parlor, in the street, in the school-room. He endeavored, through the teachings of the ancient Christian fathers, whom they revered, to lead the Greeks back to the simple truth of the gospel. He greatly improved the condition of the schools, translating school-books and providing slates and other aids, of which they had been destitute. His work was appreciated by parents and children, and in most cases by the government, but he was repeatedly brought to trial by the ecclesiastics, and often was in peril of his life. He, however,

gained religious toleration for Greece. He was joined by the rev. Elias Riggs in 1833.—In Nov., 1835, rev. Justin Perkins and Dr. Grant, with their wives, reached Oroomiah for the purpose of laboring among the Nestorians of Persia. They were well received, bishops, priests, and deacons attending their schools, and inviting the missionaries to preach in their churches. Dr. Grant acquired great fame by his surgical skill, especially by successful operation for cataract, and gained access to wild mountain regions among Koords, where Christian travelers probably never had gone before. There are now 1152 members in the reformed Nestorian church, 18 ordained native pastors, 45 preachers, and 90 teachers and other helpers.—The mission to West Africa was commenced in 1834, the rev. J. L. Wilson and wife, with a colored woman, arriving at cape Palmas in that year, and from the first was undisturbed and effective. That to the Zulus in South Africa was begun in 1836. It met with many interruptions from sickness, death, and war. Its 15 native churches have had much to contend with, and some relapses into old customs are reported. Yet a good degree of desire is shown to make the gospel known to their heathen neighbors.—In Feb., 1830, the rev. Elijah C. Bridgeman, missionary of the American board, reached Macao, to establish a mission in China, and in 1834 was joined by Dr. Peter Parker. In 1835 Dr. Parker established an eye infirmary, which was supported wholly by foreign residents. With the exception of a few pupils under Dr. Bridgeman's instruction, it afforded for a time, through conversation and books, the only opportunity of making known religious truth. He had soon three Chinese students in medicine and surgery under instruction, and a hospital under his care sufficient for 150 patients. In four years he had treated 6,450 cases. This institution was favorably viewed by the government and gratefully appreciated by the people. Through it much Christian truth was dispensed. The treaty of China with the United States in 1861, known as the Tientsin treaty, stipulated "that the principles of the Christian religion are recognized as teaching men to do good, to do to others as they would have others do to them; any person, either citizen of the United States or Chinese convert, who, according to these tenets, peaceably teaches and practices the principles of Christianity, shall in no case be interfered with or molested." Thenceforth mission work was much extended in China. The American board has two great mission centers in China, the Foochow mission and the North China mission. It has 17 missionaries, 3 medical missionaries, 28 female assistants, and 25 churches. Of the missionaries of different names who traveled through the famine-stricken district in n.e. China bearing food to the hungry, five fell victims to their over-exertions. This self-sacrifice revealed the Christians, whom the Chinese had been taught from childhood to despise, in favorable contrast with their own mandarins. In one such district the people were led by this means to consecrate their temple to the Christians' God, and, after destroying the idols, to present to the missionaries a deed transferring the temple legally and perpetually as a place of Christian worship.

The China Inland mission. Mr. J. Hudson Taylor having been for several years in China, returned to England impressed with the immensity of the Chinese population, their deep spiritual needs, and the utter insufficiency of existing agencies for their evangelization. He sought without interfering with other enterprises to devise some way by which more could be accomplished. The Chinese inland mission was inaugurated by the sending of Mr. James Meadows from England to China in 1862. The principle adopted was that the missionary should go out without guaranteed support, trusting in God for what he might send. Mr. Meadows was followed by several others, and in May, 1866, by Mr. Taylor himself, taking his wife and four children, and accompanied by a party of thirteen new missionaries, "means having come unsolicited sufficient to meet the heavy expenses involved." They reached Chin-Kiang, a free port on the Yangtse-Kiang, in May, 1868, but were driven away by a mob, and their defeat became the "laugh of tea-house and restaurant." They removed to Yang Chau, a city of 300,000 people, reaching there June 1, and after a few weeks the whole party were near being burned alive in their own hired house by an infuriated mob, instigated by the literary class. Yet they were wonderfully preserved, notwithstanding the authorities of the town failed to succor them, and a few months later were in quiet possession of their premises in Yang Chau, "mobs and mandarins having found that they were ruled by principles more potent than the fear of mobs." These missionaries, accompanied by native helpers, and preaching and distributing Scriptures and tracts, have traversed 30,000 miles through new provinces. They number now 600 church members, occupying 60 stations, and have about 90 native laborers engaged as colporteurs, evangelists, pastors, and Bible-readers. For the past 14 years the work was performed by unsalaried officers, but as correspondence became heavy, in 1875 one salaried assistant secretary was employed, and in 1876 another. In July, 1837, Mr. King, of the house of Oliphant & Co., American merchants in Canton, accompanied by his wife and by Dr. Parker and Mr. Williams of the American mission, and taking with him 7 ship-wrecked Japanese sailors, whom he wished to restore to their country, sailed for Yeddo. Approaching the town they were fired upon by the Japanese and obliged to retreat. The same reception met them at another port, and they relinquished for that time the attempt to open intercourse with Japan. The commercial treaties of 1854 and 1858 between Japan and England and America having prepared the way, and other societies of America, England, and Scotland having already entered some parts of Japan, the American board sent missionaries in

1869 to that field, and has now in and around Osaka, Kioto, Kobe, and Okoyama, "4 principal and 14 out-stations, 16 churches, 12 of them self-supporting, with 500 communicants. Twelve missionaries, 3 physicians, 30 female missionaries, 8 native pastors, 18 evangelists, 14 teachers, and 7 Bible-women are at work." A native missionary society is formed, and is very useful, and the native Bible-women do much good among the native women. The American board in 1880 had 17 missions, 75 stations, 642 out-stations, 156 American ordained missionaries, 6 physicians unordained, 254 American assistants, male and female, 138 native pastors, 327 native preachers and catechists, 730 school teachers, 232 native helpers, 273 churches, 16,992 church members, 1185 pupils in training and theological schools, 1356 girls in boarding schools, 1096 other adults under instruction, 27,056 pupils in common schools. The whole number of pupils is 30,693. The board has 66 seminaries and colleges.

In 1858 the Reformed church, which till that time had co-operated with the American board, organized for itself the board of foreign missions of the Reformed church in America. It has very successful missions in China, India, and Japan; and in 1880 had 14 stations, 101 out-stations, 16 ordained American missionaries, 21 assistant American missionaries, 49 native ministers and catechists, 1719 pupils in day schools, 12 theological students, 2,341 communicants.

The American Baptist missionary union was formed in 1814, and at once assumed the support of Dr. Judson, who had been laboring in Rangoon, Burmah, since July, 1813. The early work in Burmah was greatly hindered by war, and the missionaries were inhumanly treated; but Dr. Judson was spared to do a great work among the Burmese and Karens, and Mr. and Mrs. Wade and many other earnest laborers have continued the mission with great success. The mission to the Telugus, begun in 1836, for many years alternated between success and failure, and again and again its relinquishment was proposed. In 1867 a remarkable work of prosperity commenced. The first church of Christ was organized by rev. Mr. Clough with 8 members, and in 8 years the number increased to 3,300. In 1876 came famine and afterward cholera, and again famine, terrible, widespread, and long continued. The missionaries were made almoners of the government, and thus gained access to many hundreds of persons, to whom they spoke of Christ. In 1878, within a few months, 9,147 were baptized.—The mission to Siam was begun in Bangkok in 1833. In 1877 there were 6 churches, 418 members (mostly Chinese), 7 chapels, 2 ordained and 6 unordained native preachers. The Siamese government has not only proclaimed toleration, but decreed that no master or relative shall compel any Christian to do acts contrary to his religion, as worshipping spirits, feasting spirits, laboring on Sundays, only excepting the case of war and public business of importance. The Baptist union has missions in Greece, Africa, Arracan, Assam, China, and Japan, besides some countries of Europe. It had in 1880 30 stations, 162 American missionaries, 616 native preachers, 475 churches, 40,087 church members. Income, \$314,860.

The Methodist Episcopal missionary society was formed in 1819. It has successful missions in India, China, Japan, Africa, Bulgaria, Mexico, South America, and some countries of Europe. It had in 1880 97 American ordained missionaries, 63 female American missionaries, 138 native ordained preachers, 185 native unordained preachers, 197 local preachers, 390 teachers, 10,282 day scholars, 26,702 church members.

The Protestant Episcopal missionary society was organized in 1820. For some reason no mission was established till 1830, when the revs. J. J. Robertson and J. W. Hill, and Mr. Bingham, a printer, were sent to Greece. It has now missions in Greece, Western Africa, China, Japan, Hayti, and Mexico. In 1880 it had 141 stations, 5 American and 2 native bishops, 43 American and native priests and deacons, 4 physicians, 24 foreign lay workers, 164 native helpers, 2,500 pupils in boarding and day schools, 4,549 communicants.

The Presbyterians had since 1741 done missionary work, mostly among the Indians, under different organizations, which in 1831 were merged in the board of foreign missions of the Presbyterian church. Its first mission was to Liberia, where unusual obstacles presented themselves in climate and the character of the people. It is still continued; also the missions at Gaboon and Corisco. In 1833 the rev. Messrs. Reid and Lowrie were sent to Lodiana, in the far interior of India. Sickness and death weakened the mission, but it was reinforced, and useful native laborers have been raised up. That mission has now 10 stations. Their mission to Furruckabad, where Freeman and Campbell, with their wives, were murdered in the Sepoy rebellion, was commenced in 1838, and has 7 stations. The Kolapore mission, which was begun as independent by the rev. R. G. Wilder, and has passed into their hands, has 3 stations. The converts—Mohammedans, Sikhs, and Hindus—have in some instances suffered great privations and persecutions. On occasion of the reuniting of the Old School and New School general assemblies, the Presbyterian board received an accession to its membership of the New School members of the American board (thus left entirely to the Congregational churches), and at the same time, in amicable transfers, the missions of that board in Syria, Persia, West Africa, and among the Seneca Indians of New York. Those missions have since been reinforced by the Presbyterian board. It has missions also in Siam, China, Japan, Brazil, Chili, the United States of Colombia, among the Indian tribes, and the Chinese of this country. In 1880 it had: ordained American mission-

aries, 125; ordained native missionaries, 83; licensed native missionaries, 147; American lay missionaries, male and female, 280; native lay missionaries, 516; communicants, 12,607; pupils in boarding and day schools, 17,791.

The Evangelical Lutherans began foreign missions in 1841. They have missions in India and Africa, with 5 ordained European missionaries, 2 ordained native missionaries, 42 native assistants, 250 communicants, 5,092 baptized converts, and 950 scholars. The Seventh-day Baptists began in 1842, and have small missions in West Africa and China. The Baptist church, South, began mission work in 1845, and has missions among the American Indians, and in Italy, Africa, and China. The United Presbyterian church, from its organization in America in 1858, has had missions in Syria, Egypt, India, and China. It had in 1880 23 stations, 13 foreign ordained missionaries, 8 native ministers, 12 teachers, 21 churches, 1218 communicants, 3,702 scholars. The Presbyterian church, South, was organized separately in 1861, during the rebellion; and in 1880 had 17 missionaries, 50 native laborers, 1400 communicants, 495 pupils, and an income of \$48,485.

At the period when the subject of slavery was kindling intense feeling and heated discussion throughout the United States, some of the missionary societies sought to avoid being involved in those controversies as foreign to their objects, while some friends of the cause thought it impossible to maintain neutral ground. This led to separate organization.—The Free Baptist missionary society was formed in 1843, sending a mission to Hayti; and the American missionary association in 1845. The Union missionary, the committee for the West India mission, and the Western Evangelical missionary association, joined the American missionary association, taking with them their missions in West Africa, in the West Indies, and among the North American Indians. This society, now mainly in the hands of the Congregational churches, has operated in Siam, the Hawaiian islands, and also among the Chinese of California. The work in the Mendi mission and among the Chinese has been very successful. Since the slaves were emancipated, it has been chiefly occupied with a great work among the freedmen of the former slave and border states. It had in 1880 93 missionaries, 213 teachers, 76 churches, 5,084 church members, 71 schools, 10,020 pupils.

The American and foreign Christian union resulted from the union in 1849 of the Foreign Evangelical, American Protestant, and Philo-Italian societies. It has labored in Italy, Belgium, Sweden, Canada, Hayti, South America, and Mexico, and five years after its organization numbered 140 missionaries, half of whom were ordained. Denominational societies having become interested in the work, the union has transferred much of its work to them, and turned its attention more to our own country. It is still aiding the work of foreign evangelization, especially in France and Spain. In 1815 a seminary for the training of missionaries was founded at Basel, and in 1821 the evangelical missionary society was formed there, which employs in Africa, India, and China 98 European missionaries, 59 female missionaries, and 210 native laborers, and has 3,718 communicants. France, since 1822, has had a missionary society, with a mission among the Basutos of s. Africa, which has occupied 17 stations, has 69 native helpers, and 2,000 communicants.—In 1824 the Berlin missionary society was formed, and has a mission in southern Africa with 31 stations and 45 laborers.—The Rhenish missionary society, founded in 1828, has 16 stations in s. Africa, with 11,300 converts; also among the Battas in Sumatra, 11 stations, with 3,500 converts.—In 1836 the evangelical Lutheran missionary association of Leipsic was founded, and has in India 17 European missionaries, 16 stations.—In 1854 the Hermansberg society was organized, which has sent out entire colonies of missionaries.—There is also Gossner's mission union, founded in 1836 by Papa Gossner, as he was called, at 70 years of age, largely with his own resources. Its most interesting station is in and near Chota Nagpore, among the Kohls. The first convert was baptized in 1850, and in 1857 there were 800 converts. In the Sepoy rebellion they were hunted from their homes, their chapels were unroofed, and a price set on their heads. Those who survived gradually found their way back, rebuilt their huts and chapels, and in 1863 numbered 3,400. In 1871 there were 20,720 native Christians, 105 native preachers, and 1297 scholars.—The Friends' missionary society began their work by sending Rachel Metcalfe to India in 1866. This mission has been reinforced, and has now 11 members and 4 native teachers and catechists. In 1867, in response to an appeal from Mr. Ellis of the London missionary society, they sent Mr. Sewell to Madagascar, where they had assigned to them one of the 9 churches of the metropolis, with the work in a district 70 m. long, 35 m. wide. They have now 108 congregations, 3,250 members, 85 schools, and 2,860 pupils. When Mr. Sewell went there the majority in the district still trusted in their idols, but in two years had destroyed them all. In Syria also they are doing good work. These missions, though ascribed to English Friends, are largely aided in men and means from America. The American Friends have a mission in Mexico.

The first woman's missionary society in America, of which we find record, is the Boston female society for missionary purposes, organized Oct. 9, 1800, which was a union of Congregationalists and Baptists. After this they became common in many parts of the country. All of these societies simply *earned*, *collected*, and *transmitted* money for the use of the general societies. As in the progress of missions it became evident that the hostility of heathen women was a great obstacle to success, and as in many heathen countries, especially in India, they were unreached by the usual missionary agencies, it

was felt that more direct efforts than had yet been made for their conversion, were necessary. Missionary women returning told to Christian women the dark and hopeless story of their sisters in India, and they longed to do more for them than had been done. It came to be believed by some that if women had the selection of their own agents, and the management of their own funds; if they originated their own methods, and arranged their own work, more would be accomplished than by the old methods. They at first desired to avail themselves of the acquired wisdom and experience of the older societies by some kind of co-operation, but their plans did not at that time meet with favor from existing boards. They therefore organized independently the woman's union missionary society. It was incorporated in New York in 1861. From the first it has been undenominational. Its higher officers have thus far performed their duties without remuneration. The number of missionaries employed since the formation of the society is 93; the number now in the field, 41; the present number of schools is 38; zenanas taught, 426; pupils in 1880 were 2,020. The largest annual collection was \$54,207. Total receipts to May, 1879, \$560,712. It has auxiliaries in 22 states. Various denominational woman's boards have since been formed, as the woman's board of missions, Congregational, in 1868; ladies' board of missions, Presbyterian, 1868; woman's board of missions of the interior, Congregational, 1868; woman's foreign missionary society, Presbyterian, 1870; woman's foreign missionary society of the Methodist Episcopal church, 1869; woman's Presbyterian board of missions of the northwest, 1870; Baptist ladies' missionary society, 1871; and many others. The total receipts of all such societies, as reported from the formation to 1880, reached about \$3,000,000. It is impossible in the nature of the case to furnish statistics of results of this work. There is evidence, however, that it is useful and successful beyond anticipation, and that through it many women in India are receiving that enlightenment and blessing which ever follow the knowledge of the Lord Jesus Christ.

There are computed to be now 500,000 converts from heathenism in the world. The Protestant missionary societies of the world number 52. The missionaries in various fields supported by American Christians number 574. With very little exception, all the Protestant societies have carefully avoided interfering with each other's work, or entering each other's fields, and in many instances where their fields were adjacent there has been a delightful spirit of concord and mutual helpfulness.

Some striking facts connected with the progress of the gospel in the world may be mentioned here. A Christian lady of Calcutta, the wife of an English officer, had long desired to benefit the native women. It happened one day that a native of rank, a former pupil, visiting at the house, saw and greatly admired a pair of beautifully embroidered slippers which the lady had completed for her husband. The lady offered to teach his wife to do such work if she might go to her. She allowed him to take home the slipper and consult the mother-in-law. Permission was granted her to go and teach the wife not only to sew, but to read, and ultimately to read the Bible. This is the door through which has been introduced the whole system of zenana meetings in India. The missionary ladies heretofore excluded are now admitted to the private apartments of thousands of the women, and their instructions are bearing cheering fruit in many hearts. Before the first Protestant missionary went to China in 1807 it was thought impossible for a foreigner thoroughly to acquire the Chinese language. Nevertheless, not only has the Bible been translated into three Chinese dialects, but a variety of useful books, as dictionaries, geographies, books on medicine, jurisprudence, etc., have been so translated as to be acceptable to intelligent Chinese, and some have been reprinted by them. At Shanghai alone the mission press issues 18,000,000 pages annually. The interior of Africa had for hundreds of years foiled the attempts of the very martyrs of science to penetrate it. Livingstone, fired with desire to open Africa to the gospel, and if possible to stop the fountains of the slave-trade, unlocked the regions so long closed. The results of his daring might have been partially or wholly lost had not Stanley followed him and brought report of a native king willing to listen to the gospel. Now all Christendom is combining for the conversion of the central portions of the dark continent, and at least five societies have sent missionaries to different posts in that region. The formation of a society of intelligent Hindus, the Brahmo Somaj, who reject idolatry and assemble for the worship of a supreme being, indicates the working of the leaven of Christian truth. Its present leader, Kesub Chunder Sen, says of India, "Native society is being roused, enlightened, reformed under the influence of Christianity." Sir Bartle Frere, who spent 30 years in India, said, "The teaching of Christianity among 160,000,000 of Hindus and Mohammedans is effecting extraordinary changes in India. The experience of a few more years will demonstrate the fact that the missionary enterprise is incomparably the most effective machinery that has ever been brought to operate upon the social, the civil, and the commercial interests of mankind." The last 10 years have witnessed a greatly increased success in missionary work. Missions have often been declared a hopeless toil; but if the recent rate of advance be maintained, the time will be not so remote as one might think who gave the subject only hasty thought, when the last heathen nation shall have heard the gospel.

MISSISQUOI, a co. in s. Quebec, having the state line of Vermont for its s. boundary, and the n. portion of lake Champlain, called Missisquoi bay, and the Richelieu

river for its s.w. boundary; 560 sq.m.; pop. 16,922. It is traversed in the extreme e. by the Southeastern and Montreal railway, which in the extreme n. forms a junction with the Stanstead, Shefford and Chambly, and the Chambly and Sorel railroads. The Central Vermont railroad crosses the extreme s.w. section on the shore of the lake. Its county seat is a port of entry. It has saw and grist mills, and beds of iron ore, brick-yards, and manufactories of various kinds. Capital, Frelighsburg.

MISSISSAGA, a tribe of Indians belonging to the Algonquin nation, who, when first known by the whites, lived n. of lake Huron on a river since called by their name. After the defeat of the Hurons by the Iroquois, they moved to the region of lake Superior, but after a few years returned. Until the French and Indian war broke out they were constantly engaged in warfare with the Sioux, and were driven eastward to the Thousand islands. At first friendly to the French, they were in 1746 gained over by the Six Nations, and for a time sided with the English; but in the second war, feeling themselves ill-treated by their white allies, again joined the French; when the Pontiac war began they once more assisted the English, but in the Miamia war (1792) and in the war of 1812 showed themselves hostile to the Americans. For a short time they lived near the present site of Erie, but have long been settled in Canada, occupying four villages in Ontario. Missions were established among them as early as the latter part of the 17th c., but only within the last 50 years has Christianity made much progress among them. They are now, however, well advanced in religion and civilization, till the land, live in houses, and have schools. They number between 500 and 1000.

MISSISSIPPI (*ante*). In 1539 Fernando de Soto, with a band of Spanish adventurers, penetrated into that part of the state now known as the Great Yazoo bottoms, remaining more than a year. It was not until 1673, a hundred and thirty-two years later, that the French explorers, Joliet and Marquette, passing down the Mississippi river, landed at several places within the limits of the state. In 1682 De la Salle and the chevalier de Tonti made their appearance among the Natchez Indians, and remained for some time. It was not, however, until 1699 that the first attempt to found a colony was made by Iberville, who brought 200 immigrants from France to the eastern shore of the bay of Biloxi. The place was called Biloxi, and it was the germ of the subsequent settlement of New Orleans and of the dominance of the French in that quarter. Iberville, after returning to France, came back in 1716 with Bienville and the chevalier de Tonti, a large body of immigrants, and a military force, and ascended the Mississippi to the present site of Natchez, where they founded a colony named Rosalie, in honor of the countess of Pontchartrain. It flourished for a little while, but in 1718 it fell with the whole region under the sway, for a time, of the Scotch speculator, John Law. Afterwards, when the "Louisiana bubble" had burst, the whole territory of Orleans fell into the hands of the Company of the Indies, and the small colonies in Mississippi grew but slowly. Bienville, the governor of the province, was so fortunate as to keep on good terms with the powerful Indian tribes, but his successor, Perrier, incurred the hostility of the Choctaws, and a conspiracy was formed by that tribe with others to expel the French from the whole region. The attack was made first upon Rosalie, Nov. 29, 1729, but the other settlements were assaulted nearly at the same time. At fort Rosalie 200 persons were killed, and more than 500 taken prisoners, while in the smaller settlements many were tortured and ruthlessly butchered. But a swift retribution followed. The French commander at New Orleans pursued the Indians to their strongholds, killed many, destroyed much property, released the captives, and took 427 prisoners, among them several chiefs. These prisoners were sent to San Domingo and sold for slaves. The Company of the Indies having abandoned the territory to the king of France, Bienville, in 1733, was again made governor. He found the colony at war with the Chickasaws, and the conflict continued several years. Then there was a peace, followed in 1752 by another Indian war, instigated, it was said, by English adventurers. The French commander sought to retaliate, but without much success. In 1763 the whole region was ceded by France to England, after which immigrants flocked thither in considerable numbers from the English colonies on the Atlantic coast. In 1798, the United States having succeeded to all the rights of the English in this region, the territory of Mississippi, embracing all the region between the 31st and 35th parallels, was organized. In 1811 the portion of Mississippi below the 31st parallel, being a portion of the Louisiana purchase, was added to the territory. In 1817 Alabama was set off from Mississippi, and the latter was admitted to the union as a state in December of that year.

A broad, low ridge, running nearly n. and s. through the center of the state, divides the waters flowing into the Mississippi from those which find their way to the Atlantic through other channels. This ridge has a lateral extension westward to Vicksburg on the Mississippi, where it terminates in high bluffs. The country east of this water-shed consists of broad, gently rolling prairies, which produce heavy crops of cotton and corn; while on the w. the land is broken into valleys and ridges, extending at right angles from the longitudinal ridge, and falling gradually off to the great basin of the Yazoo delta, a region embracing 4,000,000 acres of the very best cotton land in the state. The land in the central ridge, which is partly cultivated and partly covered by heavy forests, is rolling, and of a lighter, but yet productive, surface soil on a clay foundation. The s.e. corner of the state, below the railroad from Meridian to Jackson, is a rolling, sparsely

settled country of open pine woods, stretching down to the Mexican gulf, and valuable mainly for pasturage, timber, and turpentine. There is not a mountain in the state, and the highest ridge has no elevation of more than 800 feet. The Yazoo basin, with an exception of some 200,000 acres, is subject to overflow at times of extreme high water. The valley areas of the n. section are fertile, while those of other parts of the state are often of an inferior quality. The bottom-lands in some cases are clayey and wet, and portions of the prairies are not very fertile.

The state is well watered. The Mississippi forms the whole of its w. boundary, and into it flow the Homochitto, Big Black, Yazoo, and its tributaries, the Sunflower and the Tallahatchie. On the e. side of the central water-shed are the Pearl and its branches and the Pascagoula and Tombigbee, with their affluents, all of which flow at last into the gulf, on which the state has a coast line of about 90 m., with no good harbor except that of Ship island. In the extreme n.e. corner the boundary for 15 m. is the Tennessee river, into which flow several small streams. The principal ports on the Mississippi are Vicksburg and Natchez.

The mineral deposits are not of much value. In the tertiary formations coal is found in small quantities, with mineral fertilizers of some value, fire-brick and potters' clays, limestone, etc. Iron is found in some places, but nowhere in quantities to be of practical worth. The principal fossil found in the prairie region is a marine animal more than 100 ft. long, resembling the alligator. Mineral and medicinal springs are of frequent occurrence, that of Cooper's wells being the most important.

The summers are long and hot, but not unhealthful, save in the low bottom-lands. The winters, which of course are short, are somewhat damper and colder than on the coast. From October to June the climate is delightful. The highest temperature of the summer is 90°; the lowest of winter 18°. The mean annual temperature at Vicksburg varies from 64° to 67°.

A large portion of the state is covered with primitive forests. The principal deciduous trees are numerous species of oak, hickory (four species), black walnut, butternut, dogwood, black and sweet gum, beech, sycamore, cottonwood, red maple, ironwood, locust, papaw, and black and white mulberry. The principal evergreens are the pine (several species), the cypress, and the live oak. The fruits most cultivated are apples (in the n.e. part of the state), grapes, peaches, pears, quinces, apricots, and plums; in the southern counties, figs, lemons, oranges, and bananas.

In the forests wild animals abound; among them wolves, bears, foxes, wildcats, panthers, raccoons, opossums, deer, rabbits, hares, squirrels, gophers, etc. Wild-turkeys, pigeons, quails, rice-birds, mocking-birds, and wild-ducks are found in great numbers. Hawks, vultures, and gulls, and birds of gay plumage are numerous. Alligators haunt the bayous of the Mississippi, and lizards and water-snakes are found in the swamps and bottom-lands. Rattlesnakes and moccasin-snakes, as well as a great variety of harmless reptiles, abound. Mississippi sound and the various rivers contain a great variety of edible fish. Oysters and other shell-fish are found in Mississippi sound.

Cotton and corn are the great agricultural staples, though wheat and oats do well in the upland regions. Excellent pasturage, with roots for swine, is found in the low-lands and in the river valleys. According to the census of 1870 there were 13,121,113 acres of land in farms, of which 4,209,146 acres were cultivated, while 8,911,967 acres were uncultivated. The cash value of farms was \$81,716,576, of farming implements \$4,456,633. The estimated value of all farm products for the year was \$73,137,953. The wheat crop was 274,479 bush.; the corn crop, 15,637,316 bush.; the oats crop, 414,586 bush.; the cotton crop (larger than that of any other state), was 564,938 bales; the wool clip, 288,285 lbs.; the rice crop, 374,627 lbs.; cane-sugar, 49 hogsheads; cane-molasses, 152,164 gals.; sorghum-molasses, 67,509 gals.; Irish potatoes, 214,189 bush.; sweet potatoes, 1,743,432 bush.; peas and beans, 176,417 bush.; beeswax, 9,390 lbs.; honey, 199,581 lbs.; butter, 2,613,521 lbs.; cheese, 3,099 lbs.; milk sold, 17,052 gallons. Value of live stock, \$29,940,238; number of horses, 90,221; mules and asses, 85,886; milch cows, 173,889; working oxen, 58,156; other cattle, 269,030; sheep, 232,732; swine, 813,381. The corn crop of 1873 was 18,543,000 bush., valued at \$15,761,550; wheat, 189,000 bush., \$320,750; oats, 492,000 bush., \$423,120; Irish potatoes, 206,000 bush., \$247,200; tobacco, 85,000 lbs., \$14,450; the cotton crop about 600,000 bales, \$28,500,000. Within the last few years a new industry, that of raising early fruit and vegetables for the Chicago and other north-western markets, has sprung up. The center of this industry is at Crystal Springs, where the soil and climate are peculiarly favorable for the purpose. Already the trade has become profitable, and it will probably be much extended in future. The agricultural department at Washington, Jan. 1, 1874, estimated the number of horses in the state at 88,300, valued at \$7,682,100; mules and asses, 99,000, \$10,793,990; milch cows, 180,100, \$3,886,558; oxen and other cattle, 329,800, \$4,053,242; sheep, 153,600, \$296,448; swine, 819,100, \$2,858,659; total value of live stock, \$29,000,000. One of the greatest impediments to the agricultural prosperity of the state is the frequent inundation of its alluvial lands by the overflow of the Mississippi. This can be prevented only by the construction of costly levees. Mississippi and Louisiana have expended millions of dollars for this purpose; but the work is too extensive for their resources, and they propose, in view of the national importance of the Mississippi as a channel of commerce, that congress shall provide for its accomplishment at the nation's expense. Mississippi is not, to

any great extent, a manufacturing state, though its natural facilities therefor are great. In 1870 there were in the state 1731 manufacturing establishments, mostly small, employing 5,941 persons, using \$4,501,714 of capital, paying \$1,547,428 in wages, and producing goods valued at \$8,154,758. There were 156 saw-mills, employing 1643 persons, and producing lumber valued at \$2,029,145; 45 flouring-mills, producing flour valued at \$468,576; 85 wagon and carriage factories, producing \$268,031. In 1873 there were 11 cotton factories, using 2,545 bales.

There were within the state in 1875, 1141 m. of railway, belonging to 12 different lines, with an aggregate capital of \$1,878,163, and a funded indebtedness of \$3,325,000.

The assessed valuation of property in 1870 was \$177,278,890; the true valuation was supposed to be about \$310,000,000. The debt of the state in 1874 (deducting \$7,000,000 of bonds repudiated in 1842) was \$3,558,629, of which \$1,157,415 was due to the school funds. The receipts of the state treasury in 1874 (deducting \$795,936 for uncurrent and unavailable funds, and \$74,269 in the shape of certificates of indebtedness) amounted to \$1,385,618; the disbursements to \$1,238,140.

The state has three customs districts—Natchez, Pearl River, and Vicksburg. The direct foreign trade and the coasting trade are carried on entirely in the Pearl River district, of which the only port is Shieldsborough. The amount of foreign commerce in 1874, consisting mainly of exports, was \$233,406; the number of vessels entered as engaged in that trades was 93, aggregating 22,523 tons; clearances, 94—tonnage, 20,249 tons; entrances in the coasting trade, 68—tonnage, 12,048 tons; clearances, 96—21,382 tons; total tonnage of all kinds, 76,202.

There were no national and but five state banks of deposit in Mississippi at last accounts; the five had an aggregate capital of about \$550,000. Six savings banks have a capital of not far from \$300,000. An insurance department was connected with one of the banks of deposit, and also with one of the savings banks, and there were 21 insurance companies of other states doing business in Mississippi.

According to the census of 1860, the population of the state was 791,305, of which 353,899 were white, 436,631 slaves, and 773 free colored. The slaves having been emancipated in suppressing the rebellion, the population of 1870 was 827,922, of which 382,896 were white, and 445,026 (including 16 Chinese and 809 Indians) were colored; males, 413,421; females, 414,501; natives of the country, 816,731; persons of foreign birth, 11,191; persons of school age (5 to 20 years), 278,999; voters, 174,845. Pop. '80, 1,131,592.

The constitution of the state at the time of its admission to the union recognized the need of a good common-school system, and congress was asked for an appropriation of public lands to promote the object. Grants were accordingly made at different times, amounting in all to 10,697,883 acres, an amount equal to more than one-third of the area of the state. The proceeds of these lands, so far as they have been sold, have been mostly diverted from their legitimate object and lost by gross mismanagement. Indeed, before the rebellion there was no well-regulated system of common schools, or hardly an effort to secure such a boon, the policy of this as well as of the other slave states being unfavorable thereto. After the national troops gained a foothold in the state, northern benevolent societies began to establish schools, but they were attended mainly by the negroes. Appropriations from the Peabody fund and from the resources of the Freedmen's bureau were added to the contributions of the benevolent societies, and a beginning of a better educational system was made. After the state was reconstructed, the legislature enacted laws for the establishment of a common-school system, and since that time much has been done to carry those laws into effect. In 1878 an act was passed placing the schools under the management of a state board of education, a state superintendent, county superintendents, and local boards; providing that white and colored youth should not be taught in the same school-house, nor in school-houses nearer to each other than two and a half miles; that the Bible should not be excluded from the schools, and that the proceeds of land sold for taxes, from fines, forfeitures, breaches of penal laws, etc., should be set apart for the support of schools. Another act was passed making provision for a system of high schools. In 1878 the number of children of school age was 348,244, of whom 158,156 were white, and 190,088 were colored. Number of children in school, 205,855, of whom 100,676 were white, and 104,179 were colored. Average monthly enrollment, 171,226, of whom 82,566 were white, 88,660 colored. Average daily attendance: whites, 64,318; colored, 71,658; total, 135,796. Number of teachers: white, 2,948; colored, 1813; total, 4,761. Average monthly salary of white teachers, \$28.02; of colored teachers, \$26.92½. The total amount of state funds expended for schools in 1874 was \$1,242,308, of which over \$1,000,000 was raised by state tax. Nearly or quite as much more was raised by local taxation, and the legislature succeeded in saving from the wreck of the school-fund nearly \$2,000,000. There were in the state in 1873, 8 high and 2 normal schools—one of the latter at Holly Springs in the n. section, and one at Tougaloo, near the center. The number of private schools in 1874 was 586, attended by about 13,000 pupils. Number of persons who could not read or write in 1870 was 349,813. The university of Mississippi at Oxford has classical, scientific, and law departments; while Alcorn university (colored) at Oakland has scientific and agricultural departments. There are, besides, Mississippi college (Baptist) at Clinton, Pass Christian college (Roman Catholic) at Pass Christian, Madison college at Sharon,

Tougaloo university (unsectarian, but under Congregational auspices) at Tougaloo, and Shaw university (Methodist) at Holly Springs; and not less than nine colleges and seminaries for the instruction of girls, mostly under the patronage of different Christian sects—Methodist, Presbyterian, Baptist, Cumberland Presbyterian, and Episcopal.

The state has an institution for the deaf and dumb, and another for the blind, near Jackson, the capital. There are two orphan asylums at Natchez, both under Roman Catholic control, and there is a soldiers' orphans' home for children of confederate soldiers near Lauderdale Springs. The state hospital for the insane and the penitentiary are at Jackson.

According to the census of 1870 there were in the state 111 newspapers and periodicals, of which 3 were daily, 6 tri-weekly, 3 semi-weekly, 92 weekly, 2 semi-monthly, and 5 monthly.

The number of church organizations in 1870 was 1829, of church edifices 1800; value of church property, \$2,360,800. The principal denominations, in numerical order, were: Methodists, Baptists, Presbyterians, Cumberland Presbyterians, Episcopalians, Roman Catholics, and Lutherans.

The state is divided into 79 counties. The governor, lieutenant-governor, and other state officers, are elected for a term of four years; and the legislature, meeting biennially, is composed of a senate and house of representatives—the members of the former elected for four and those of the latter for two years. The supreme court is composed of three judges, appointed by the governor, by and with the advice and consent of the senate, for a term of nine years. The circuit court is composed of 15 judges (corresponding with the number of judicial districts), appointed by the governor, by and with the advice and consent of the senate, for a term of six years. The judges of the court of chancery, 20 in number, are appointed by the governor for four years. The salaries of the supreme court judges are \$4,500 each; those of the circuit court judges are \$3,500, and those of the chancery court judges \$3,000.

The electoral votes of Mississippi for president and vice-president of the United States have been cast as follows: 1820, 2 for Monroe and Tompkins, 1 vacancy; 1824, 3 for Jackson and Calhoun; 1828, 3 for Jackson and Calhoun; 1832, 4 for Jackson and Van Buren; 1836, 4 for Van Buren and R. M. Johnson; 1840, 4 for Harrison and Tyler; 1844, 6 for Polk and Dallas; 1848, 6 for Cass and Butler; 1852, 7 for Pierce and King; 1856, 7 for Buchanan and Breckinridge; 1860, 7 for Breckinridge and Lane; 1864, did not vote; 1868, 7 vacancies; 1872, 8 for Grant and Wilson; 1876, 8 for Tilden and Hendricks; 1880, 8 for Hancock and English.

MISSISSIPPI, a co. in n.e. Arkansas, having the Mississippi river for its e. boundary, separating it from the state of Tennessee, the river St. Francis and lake St. Francis for its s.w., and the state line of Missouri for its n. boundary; 900 sq.m.; pop. '80, 7,332—7,230 of American birth, 2,661 colored. It is drained by Little river, the Obion, and several lakes of considerable size, the largest being Big lake. Its surface is generally level, but diversified by cypress swamps, bayous, canebrakes, and thick forests. Its soil wherever tillable is fertile and adapted to the production of cotton and corn, stock raising being carried on to a limited extent. Capital, Osceola.

MISSISSIPPI, a co. in s.e. Missouri, having the Mississippi river for its e. and n. boundary, separating it from Kentucky; 370 sq.m.; pop. '80, 9,270—9,020 of American birth, 2,141 colored. Its surface is generally level, diversified by sloughs and low swampy sections covered with a thick growth of cypress trees, and having small lakes, and James and Cypress bayous in the s. section. The soil under cultivation produces wheat, oats, Indian corn; pork is among the staple products, and horses, cattle, sheep, and swine are raised. It is intersected by the Cairo and the Belmont divisions of the St. Louis, Iron Mountain and Southern railroad, centering at its co. seat, and it contains in the s.e. section the town of Belmont, the first battle-field on which gen. Grant had chief command. Capital, Charleston.

MISSISSIPPI RIVER (*ante*). The sources of this great river are lakes Itasca, Travers or Pemidgi, Cass, Winnebigoishish, Fishing, Leech, and Mud, lying among hills of drift and boulders, in the midst of pine forests and marshes. From lake Itasca to Travers the stream is about 12 ft. wide and 2 ft. deep. It issues from the latter 120 ft. wide to Cass lake, which it leaves with a width of 172 ft., contracting and deepening below as it flows through marshes till it comes to a junction with Leech river, where it has rapids of 20 ft., called the falls of Pecagama, 270 m. from the source. To this point small steamers navigate. The total descent to this point is 324 feet. Thence to the mouth of Pine river, about 200 m., the river falls 165 ft.; thence to Crow-wing river 47 m., one ft. per mile. The river is narrow through this distance and winds through oak and maple forests, marshes, and sandy hills, where the natural formation of rock is overlaid with the gravel and boulders of the drift period. Below, the river passes through a prairie country down to Elk river, and is stained slightly with the brownish color given by piney and marshy vegetation; 133 m. below the Crow-wing are the Sauk rapids one m. long, where the first regular formation of rock is seen on its banks. This is of the Potsdam sandstone, which extends from that point down to Dubuque and Rock Island. The falls of St. Anthony at Minneapolis are only 18 ft., with a breadth of 1200. Up to this

point the river is navigable for commercial purposes, widening below from what is called lake Pepin, studded with many islands. From above the falls of St. Anthony to the junction with the Missouri, the river flows through a valley of great beauty and uniform fertility. Cliffs and rocky bluffs, from 200 to 300 ft. high, give a picturesque character to that part of the valley below Rock Island, where it strikes the carboniferous strata, the geological formation of the valley, to about 100 m. below the Missouri. At Rock Island, 350 m. below St. Anthony, there is a fall of 22 ft., and the Des Moines rapids, 475 m. below St. Anthony's, have a fall of 24 ft. The government has constructed ship canals around these rapids, so that the navigation of the upper Mississippi is uninterrupted below the falls of St. Anthony. The junction of the Missouri is like the marriage of a rough impetuous uncouth man with a refined and graceful woman. The surging, muddy, eddying waters of the greater stream, the Missouri, for a long distance flow side by side with the clear waters of the Mississippi, joining but not blending, till thrown together by many a crook and turn and eddy between the bluffs of the great valley. Before the Ohio river joins, the union is complete; but the waters remain turbid to their junction with the sea, and, where joined by the currents of the Arkansas and Red rivers, take a more reddish color. Three m. above cape Girardeau and about 30 m. above the mouth of the Ohio, the river begins to have a surface above much of the adjacent land; and for 1300 m. to the sea it flows over a vast alluvial deposit of its own creation, below the surface of which its tortuous bed is deeply cut, while the top of its current is higher than the land.

The mean annual velocity of the current below the junction of the Missouri is 3.39 ft. per second—about $2\frac{1}{2}$ m. an hour. The average annual rain-fall in its basin is estimated at 30.4 in.; and the yearly discharge of water into the gulf of Mexico at 145 cubic miles. The depth of the channel below the mouth of the Ohio is from 75 to upward of 100 feet. The variation from lowest to highest water at Natchez, Vicksburg, and Cairo was formerly 52 ft., but is supposed to have been reduced to 46 ft. by new channels and levees. The sediment contained in the water below the Missouri is .0035 of its volume. The area of the delta of the river is estimated at 38,600 sq. miles. The entire valley of the river is margined by deltas, and considerable parts of Louisiana, Mississippi, and Arkansas are all delta. The bottom-lands above cape Girardeau, which are occasionally overflowed, but which are clearly above the level of the river at ordinary stages, are to be distinguished from those large tracts adjoining the lower part which lie below the surface of the river at all seasons. The former are almost continuous on one side of the river or the other, and generally on both sides, from the falls of St. Anthony to three m. below cape Girardeau, where the surface is so low as to be subject to overflow in all seasons, save where defended by levees. These bottom-lands, both high and low, are of the highest order of fertility; those farthest north being used for corn (maize) principally, and for tobacco and pasturage. Some of the largest have been reclaimed from liability to overflow by dikes across the water-channels by which they were inundated. Sny island in Pike co., Illinois, so reclaimed, is 40 m. in length. The American bottom extends from the mouth of the Missouri 90 m. down the river, with an average breadth of 6 miles. Below cape Girardeau (about 30 m. above the mouth of the Ohio), on the w. side, the whole country down to the gulf is mostly delta for an average width of 50 m.; and in high floods the river formerly overflowed nearly all the surface between the mouth of the Ohio and the St. Francis rivers in s.e. Missouri and eastern Arkansas, filling the lakes and lagoons of that region, and then flowing by numberless channels to the White river and Arkansas valleys, the bayou Macon, Washita, Red and Atchafalaya rivers into the gulf. This region is made safe from floods and habitable only by levees. The Louisiana delta has been for a hundred years to a considerable extent reclaimed by levees. The great delta on the east side, embracing the whole area between the Mississippi and the Yazoo, about 60 m. in width, has been partially protected for about 50 years, while the protection of the upper portion above Memphis is a more recent undertaking.

The first attempt to guard the lower part of the valley against the river floods was in 1717, when the French governor, De la Tour, ordered embankments for the protection of New Orleans. In 1728 the French planters of Louisiana were protecting each his own water-front, and soon after combined for joint work by neighborhoods and parishes. In 1828 the state of Louisiana began to take rigorous action for the more complete protection of its delta lands. In 1836 and 1838 several of the great side channels by which inundations had come were closed at the expense of the counties, and the question of the closing of all the overflow channels, so as to confine the stream to one bed in all stages of water, was the subject of much excited difference of opinion. The closure party prevailed, and one by one the side outlets of the Mississippi were cut off by levees, so that by 1844 every old river lake inlet for 600 m. up the w. bank had been effectually closed. The results were even more satisfactory than had been expected, so that the levee system was entered upon with increased spirit by the states bordering the river, and the aid of the general government was invoked to unify the work. Congress, in 1850, ordered thorough topographical and hydrographic surveys of the whole Mississippi delta, under the direction of capt. A. A. Humphreys and lieut. H. L. Abbott, who began work immediately; but the report was not submitted until Aug., 1861. While the U. S. government were thus obtaining complete data for the completion of the whole

work, not only with reference to the reclamation of the vast and fertile deltas of the river, but with reference to the thorough improvement of its navigation from the gulf to its upper waters, the states most interested in the levees continued work upon them till checked by the operations of the rebellion in 1862-64. By the report of Humphreys and Abbott, in 1861, it appears that substantial levees had been constructed on the e. side up to the n. line of the state of Mississippi, including one of great magnitude across the Yazoo pass—the largest of all the outlets closed; and that above on the e. side none of great magnitude were required. On the w. side the levees had been completed to the mouth of the Arkansas, and were partially completed, including the line 25 m. long opening into the St. Francis valley.

This was the condition of the lower Mississippi at the beginning of the rebellion. Louisiana alone had expended up to that time \$18,000,000 on the levees of the main river; \$5,000,000 more on its great side outlets, the Atchafalaya, Plaquemine, and La Fourche; and \$1,000,000 on the shore of the Red river. The state of Arkansas had spent \$1,000,000; Mississippi, on her water-front of 444 m., \$14,500,000; and the state of Missouri, on her front of 140 m., \$1,640,000. The total expenditure by individuals, parishes, and states up to that time, on about 2,000 m. of the river shore, is estimated by C. G. Fershey, of New Orleans, at upwards of \$41,000,000, without counting the cost of its maintenance. The report of Humphreys and Abbott, in 1861, recommended confining the river to a single channel and making the levees higher at all points, and relatively as follows: at the mouth of the Ohio, 3 ft. above the highest flood ever known (which was then that of 1858); 7 ft. above from Osceola to Helena; 10 ft. above from Helena to island No. 71; thence down to Napoleon 8 ft.; thence to Lake Providence to be increased to 11 ft.; thence to the mouth of the Yazoo and Red River Landing to be reduced to about 6 ft.; and below to be reduced gradually to 3 ft.; and they estimated the cost of carrying out this recommendation at \$17,000,000. The tendency of all streams to build up the level of their bottoms by bars formed at their mouths was met by a recommendation to construct a jetty system at the main mouth of the Mississippi, by which its depth should be increased and maintained.

The subject of levee construction was again taken up by the U. S. government by an act of June 22, 1874, authorizing president Grant to appoint a board of commissioners to make a full report on the best system for the permanent reclamation of the delta basin of the Mississippi. Maj. gen. G. K. Warren and gen. Humphreys were put at the head of the commission, and reported, Jan. 22, 1875, substantially the recommendation of the preceding report, carried further up the great tributaries of the lower Mississippi; that the general government should make and enforce the laws necessary to execute and protect the work; and that the work should be divided "into six natural drainage districts, viz.: 1. The St. Francis bottom-lands, comprising the w. bank of the river from Cape Girardeau to Helena; 2. the White river bottom-lands, lying between Helena and the mouth of the Arkansas; 3. the Tensas bottom-lands, extending from the Arkansas to the Red river; 4. the Yazoo bottom-lands, lying between the bluffs below Memphis and Vicksburg on the e. bank; 5. Louisiana below Red river on the w. bank; and 6. Louisiana below Baton Rouge on the e. bank. In each of these districts the commission recommended the appointment of a single controlling engineer, with full power in his district, subject to the control of a board composed of the chiefs of each department. The cost of the entire work recommended by this commission by districts was as follows:

ESTIMATES FOR PERMANENT SYSTEM OF LEVEES.

DISTRICT.	Cubic yards.	Cost at 40 cts. per cubic yard.
St. Francis bottom-lands.....	17,265,000	\$6,906,000
White river bottom-lands.....	4,652,000	1,760,800
Yazoo bottom-lands.....	31,188,000	12,575,200
Tensas bottom-lands.....	36,690,000	14,676,000
Louisiana below Red river, w. bank.....	15,114,000	6,045,600
Louisiana below Baton Rouge, e. bank.....	9,865,000	3,946,000
Total.....	114,774,000	\$45,909,600

The annual cost of maintenance is estimated at \$2,000,000. The length of levees estimated on is 1775 miles.

The commissioners state the amount of land reclaimed and to be reclaimed by this system "at least 2,500,000 acres of sugar land, 7,000,000 acres of the best cotton land in the world, and not less than 1,000,000 acres of corn land of unsurpassed and inexhaustible fertility." Other authorities place the area that will be reclaimed as high as 23,000,000 acres of good land. This probably includes the swamps that may be subsequently reclaimed.

The three main mouths or passes of the river to the gulf diverge where the river has treble its mean width, that is about 7,500 ft., with a mean depth of about 26 feet. It is through the South pass that the recent great work of the government under capt. Eades has been done to deepen and confirm the main channel, and prevent the rise in the level of the bottom of the river. The outer edge of the bar formed at the mouth of the South pass since 1838 was found to have pushed into the gulf about 300 ft. a year. The depth

of the gulf at the foot of the slope formed by the deposits of the river is from 300 to 500 ft., the course of the main or South pass being direct towards its deeper waters.

The report from which these facts are drawn is published under the title of the *Report upon the Physics and Hydraulics of the Mississippi River*, by capt. A. A. Humphreys and lieut. H. L. Abbott; Philadelphia, quarto, 1861.

The expenditures of the general government on the Mississippi have been as follows:

Mouth of the Mississippi, 1836-56.....	\$690,000
Above the mouth, 1836-56.....	465,000
Mouth of the Mississippi, 1856-75.....	1,224,000
Between Illinois and Ohio rivers.....	665,000
Des Moines rapids.....	3,028,200
Rock Island rapids.....	1,039,650
Upper Mississippi and falls of St. Anthony.....	677,640
Mouths of the Mississippi, June 1, 1875, to June 1, 1879.....	3,158,108
Other parts of the river during the same time.....	1,561,100

Total \$12,508,698

The following table gives the relative expenditures in several portions of the river since June 1, 1875:

YEAR.	Mississippi, lower part of.	Upper Missis- sippi, miscel- laneous.	Mississippi, Missouri, and Arkansas.	Rock Island Rapids.	Des Moines Rapids.	Falls of St. Anthony.
1876.....	\$233,108	\$19,000	\$85,000	\$50,000	\$481,000	\$100,000
	115,000	.....	.....	.....	.....	.....
	121,000	25,000	70,500	15,000	165,000	93,000
1877.....	.....	1,500	.....	.....	.....	.....
	20,000	25,000	.....	.....	.....	.....
	500,000	25,000	.....	.....	.....	.....
	75,000	20,000	70,200	10,000	65,000	20,000
1878.....	1,000,000	4,600	.....	.....	.....	.....
	.....	13,500	.....	.....	.....	.....
	15,000	20,000	70,200	10,000	65,000	20,000
1879.....	79,000	4,600	.....	.....	.....	.....
	1,000,000	13,500	.....	.....	.....	.....
Totals	\$3,158,108	\$171,200	\$295,900	\$85,000	\$776,000	\$233,000

Total expenditures for four years ending June 1, 1879. \$4,719,208.

The deltas of the lower Mississippi are everywhere threaded with interlacing bayous and navigable channels, placing every cultivable acre of their lands near to steamboat navigation, one-tenth of the land being estimated as taken up by such water surfaces or channels. Below lat. 31° 30' the sugar-cane is grown on the delta only. Cotton is grown nearly the entire length of it, but most advantageously north of lat. 31°. Corn and sweet potatoes are grown in every part of its whole area, and in the northern parts potatoes and the cereals do well.

The timber growing in the delta region of the Mississippi is mostly sycamore, cypress, and oak—the former margining the streams, the cypress occupying the swamps, and the oaks the lands not liable to frequent inundation, the live oak being principally found within a few hundred miles of the gulf.

The climate of the Mississippi valley ranges from semi-arctic to semi-tropical. At the falls of St. Anthony, and above, spirit thermometers must be employed to register the extreme low temperature in winter, which often touches 40° Fahr., and yet the extreme of summer heat is but a few degrees less at St. Paul than at New Orleans, 97° to 104°. The range between the extremes is about 65° more at the source than at the mouth of the river. The annual mean temperature at New Orleans is 69°; at Cairo, 45°.

For the history of the discovery and first settlements of the Mississippi, see DE SOTO; MARQUETTE; LA SALLE; IBERVILLE; NEW ORLEANS; ST. LOUIS; ST. PAUL, etc. For commerce of the Mississippi, see NEW ORLEANS; MEMPHIS; and ST. LOUIS. For improvements at the mouth, see JETTY.

MISSISSIPPI RIVER. IMPROVEMENTS AT THE MOUTH OF. See JETTY.

MISSISSIPPI SOUND, a narrow strait washing the coasts of Alabama and Mississippi from Mobile bay to Pearl river—about 90 miles. It is formed and separated from the gulf of Mexico by several islands: Dauphin, Petit Bois, Horn, Ship, Cat, and the isle au Pied, the fifth of which is fortified. It is moderately deep, generally tranquil, and is navigated chiefly by the steamers and coasting vessels running between Mobile and New Orleans by the way of lake Pontchartrain.

MISSISSIPPI UNIVERSITY OF, at Oxford, Lafayette co., was organized in 1848. By the liberality of the congress of 1819, two years after Mississippi had been admitted into the union, an entire township of the public domain within the state—23,040 acres—was granted to the state for the purpose of establishing a seminary of learning. The title to this land was, by act of congress, vested in the state legislature, *in trust*, for the support

of the institution. The trust was accepted by the legislature, and, in pursuance of the spirit and intent of the act, "lands of great value" were selected by the state, and, in due time, 35½ of the 36 sections were sold. Upon this foundation the university was established, and, when it was located at Oxford, the citizens of Lafayette co. gave it a section of land as a site for its buildings. The endowment amounts to the sum of \$540,000, and the annual income to more than \$32,000. It has 10 buildings, which, with their contents, are valued at \$300,000. The libraries contain over 6,000 volumes, which have been carefully selected with the view of supplying all the needs of classical, scientific, and law students. With physical, chemical, and electrical apparatus, and with cabinets of minerals, rocks, and shells, and other fossils, the university is well supplied. The geological department has a fine collection of accurate maps and charts, and geological reports of the various state surveys. The herbarium contains specimens of all the forms of vegetable life indigenous to Mississippi and some of the adjoining states. Zoology is rendered more interesting and intelligible by maps showing the geographical distribution of animals, and by a collection of vertebrates which is increased every year. This department also possesses maps showing the geographical distribution of plants. The university comprehends three general departments: 1. That of preparatory education; 2. That of science, literature, and the arts; 3. That of professional education, embracing for the present only a school of law, with 1 professor and 5 lecturers. The number of professors (1880) is 8; tutors, 3; 1 principal of high-school and 2 assistants; students in all the departments, including the preparatory, 392; alumni, 482. Alexander P. Stewart, chancellor.

MISSOULA, a co. in n.w. Montana, having the British possessions on the n., and the state line of Idaho for its w. and s. boundary; 20,091 sq.m.; pop. '80, 2,533—1843 of American birth, 610 colored. Its surface is diversified by river, lake, and mountain, having the Rocky mountains on the e. and the Bitter Root mountains on its w. border. It is drained by the head waters of Clarke's fork of the Columbia river, the Kootenay, the Maple, and the Bitter Root or St. Mary's rivers, and by Flathead lake, the largest body of water in the territory, 10 m. wide and 25 m. long. A large proportion is covered with timber, but the soil of the valleys, especially the Bitter Root, is remarkably fertile, producing wheat, barley, oats, potatoes, and dairy products. Fruit-trees are largely imported from the states, and grow with very little care. Live stock is raised in large numbers. Gold is abundant, and worked principally by placer-mining. County seat, Missoula.

MISSOURI (*ante*) was a part of the vast territory claimed by the French as original discoverers and settlers, which, in the grant of Louis XIV. in 1712, was called Louisiana. The states of Arkansas, Iowa, Kansas, and Nebraska were also a part of this great region, the northern portion of which was called upper Louisiana. As early as 1720 the lead mines of Missouri attracted attention, but it was not until 1755 that the first settlement in the territory was made at St. Genevieve. In 1762 France ceded all that portion of the territory w. of the Mississippi to Spain, and that on the e. to England. In 1800 the region w. of the Mississippi was retroceded by Spain to France, and in 1803 it was sold by the latter to the United States. In 1755 St. Louis was known as a fur-trade station, with less than 1000 inhabitants, while St. Genevieve had about half that number. These and the smaller settlements grew very slowly until Louisiana and upper Louisiana alike came into possession of the United States. The vast region was then divided by congress into the territory of Orleans and the district of Louisiana—Missouri being included in the latter, which in 1805 was erected by congress into a territory, with St. Louis as its seat of government. In 1812, when a part of the territory of Orleans was admitted as a state to the union under the name of Louisiana, the name of the territory of Louisiana was changed to Missouri. The limits on the w. were enlarged from time to time by treaties with the Indian tribes. In 1810 the population numbered 20,845, of whom all but 1500 were within the present limits of Missouri. In 1817 the total population having increased to 60,000, while St. Louis was a town of 5,000 inhabitants, the territorial legislature asked leave of congress to frame a constitution with a view to the admission of the territory into the union as a state. This application led to a fierce excitement, not only in congress, but throughout the country. A very large number of the people of the free states were earnestly opposed to the admission of any more slave states to the union, while the people of the slave states were resolved that Missouri should not be excluded on this account. The subject was debated in congress with such heat that many citizens were alarmed lest it should lead to a dissolution of the union. Indeed, it was openly declared by some of the champions of slavery that the country would be disrupted and the national government overthrown if the petition of Missouri were rejected. These threats so terrified some of the northern representatives that they yielded to the southern demands, and Missouri was admitted to the union in 1820 under conditions set forth in what has ever since been known as "the Missouri compromise," and which, as an offset for the addition of another slave state to the union, solemnly enacted that the system of slavery should be forever excluded from all that part of the territory of the United States lying n. of 36° 30'. The admission was consummated by a presidential proclamation dated Aug. 10, 1821. The growth of the state was thenceforth rapid. At the time of the rebellion in 1861 the people were about equally divided

in sentiment, one portion adhering to the union, the other to the southern confederacy. The struggle between these two parties was very severe. The friends of secession, having control of the state senate, induced that body to call a state convention, but the body so summoned proved favorable to the maintenance of the union, and the scheme of the secessionists was defeated. Union troops having entered the state in considerable numbers, gov. Jackson, June 12, 1861, issued a proclamation calling into service 50,000 of the state militia "for the purpose of repelling invasion, and for the protection of the lives, liberty, and property of the citizens." The governor, in thus assuming that the presence of the union troops was an "invasion" of the rights of the state, endangering the lives, liberty, and property of the citizens, proclaimed himself in rebellion against the national government. Gen. Lyon, with a force of 1500 men, having taken possession of Jefferson City, the capital, in the name of the United States, and gov. Jackson and the other secession state officers having fled, the state convention again assembled, and on July 30 filled with loyal men the vacancies thus created. On Aug. 1 the new governor (Gamble) was inaugurated, and on the 5th the deposed governor issued from New Madrid a proclamation that the state was out of the union. Confederate troops in large numbers having assembled in the s.w. part of the state, gen. Lyon advanced from Booneville to Springfield to resist them. A battle took place Aug. 10, in which gen. Lyon was killed. The union forces, under gen. Sigel, retired to Rolla. On Aug. 1 gen. Fremont, commanding the department of the west, declared martial law throughout the state. Aug. 20 the rebel general Price compelled the federal forces, numbering 3,000, to retire from Lexington. Fremont thereupon hastened from St. Louis to Jefferson City, but the confederates, numbering 20,000, under gen. Price, retreated to Springfield and still further south. Fremont thereupon moved to the s.w. in five divisions, under gens. Hunter, Pope, Sigel, Asboth, and McKinstry. Nov. 2 Fremont was succeeded by gen. Hunter, and on the 18th gen. Halleck took command of the western department. Meanwhile a quorum of the legislature elected before the contest began, having assembled at Neosho, Newton co., passed an act declaring the state to be a part of the confederacy. Early, however, in 1862 a strong federal force under gen. Curtis drove the confederates into Kansas. During the rest of the year the state was disturbed by a guerilla war, kept up by secessionists who had not removed within the confederate lines. In the summer of 1863 the state convention elected in 1861, and which had been kept alive by successive adjournments, passed an ordinance providing for the emancipation of all the slaves of the state in 1870. In 1864 gen. Price again invaded Missouri, threatening St. Louis, and traversing a large part of the state; but he was soon driven back again to Arkansas. The first state election since the war was held Nov. 4, 1864, and on Jan. 6, 1865, a state convention assembled in St. Louis and framed a new constitution, which in the following June was ratified by the people by a vote of 43,670 to 41,808. During the war the state furnished to the federal armies more than 108,000 troops. In 1869 the legislature ratified, by a large majority, the 15th amendment to the constitution of the United States. The population of the state in 1875, according to a state census, was a little short of 2,000,000. Pop. '80, 2,168,804.

The Missouri river, flowing across the state from w. to e., divides it into two parts, the largest of which lies s. of that stream. This portion of the state presents a considerable variety of surface. Extensive bottom-lands lie along the Mississippi from cape Girardeau to the Arkansas river. In these lands are many lakes and lagoons, with islands never submerged by the highest floods. In them also are many almost impenetrable swamps, filled with heavy growth of cypress. The most notable of these is the Great swamp, extending from a point near cape Girardeau s. 100 m.; and then reaching far into Arkansas. These bottom-lands, if reclaimed and protected from overflow, would, no doubt, be highly productive. From a point a little below cape Girardeau, northward to the mouth of the Missouri, the Mississippi is bordered by highlands, which, between St. Genevieve and the Maramec, take the shape of solid limestone bluffs, rising from 250 to 360 ft. above the river. From these highlands westward across the whole state, the land is high and broken, but growing less precipitous as the Osage river is approached. In the s.w. part of the state are the Ozark mountains, or hills, lying not in continuous ranges, but in isolated knobs and peaks, rising occasionally from 500 to 1000 ft., and presenting occasionally perpendicular cliffs of sandstone. The river valleys are moderately fertile, but subject to overflow, while the soil upon the hills is shallow. This part of the state is but sparsely populated. The region n. of the Missouri, and bounded on the w. by the same stream, is generally level or undulating, except at points where it is intersected by the smaller rivers with their outlying hills. The bottom lands on the Missouri and the Mississippi are exceedingly fertile. Woodlands girt the streams, while the uplands are prairies, destitute of timber, but possessing a very productive soil.

The principal rivers of the state are the Mississippi and the Missouri; the former washing the entire e. boundary from n. to s., and presenting a shore line of 470 m.; the latter forming the w. boundary for nearly 200 m. from the Iowa line to Kansas City, at which point it turns eastward, flowing across the state in a tortuous course for more than 250 m. to the Mississippi. These great streams are navigable at all times, except when obstructed by ice. The Osage, one of the s. affluents of the Missouri, is navigable for small steamboats half the year. The St. Francis, White, Black, Current, Gasconade, Grand, and Chariton are navigable for small boats at high water, usually in early sum-

mer. Among the principal streams of the class not navigable are the Fabius, Salt, South Grand, Nodaway, Platte, Spring, Sac, Niangua, Cuivre, Piney, Maramec, and Castor rivers.

The mineral productions of Missouri are various and rich. Gold is found in the drift sands of the n., and silver in combination with lead in the galena and other ores. Iron in some form is found in every county, and in some places the supply is inexhaustible and of the richest quality. There are extensive bog ores in the s.e. part of the state, and the specular oxide is found in vast masses in the Iron mountain, Shepherd mountain, Simon mountain, Pilot Knob, and other places. Lead exists in immense quantities in two great fields, one in the s.e., the other in the s.w. part of the state. The lead production of Missouri is larger than that of all the other states of the union. Copper is also found in abundance in many places, and was formerly mined to a considerable extent, but since the discoveries of this metal on lake Superior these mines have been neglected. Nickel and cobalt are found at mine La Motte and the St. Joseph mines, and zinc is abundant in s.e. and s.w. Missouri. Carbonate of lime, gypsum, mica, hornblende, asbestos, bitumen, fire-clays, glass-sand, hydraulic lime and cement, polishing-stone, saltpeter, building-stone, granite, sandstone, marbles, etc., are abundant. The coal fields embrace about one-third of the whole area of the state. The coal is various in kind and quality, from common bituminous to the best cannel. Much of it is adapted to smelting purposes, and to the use of locomotives and stationary engines. There are in the state a great number of mineral springs, sulphurous, chalybeate, and saline. The salt springs of Howard county contain from 800 to 1200 grains of salt to the gallon.

The forests of Missouri are so extensive that wild animals are numerous. Among them are bears, panthers, wild-cats, wolves, foxes, raccoons, and opossums. Deer, rabbits, hares, and squirrels are abundant. Wild-turkeys, pigeons, quails, and prairie hens are in great numbers; song-birds and birds of gay plumage are numerous, and eagles, vultures, hawks, etc., prey upon the smaller birds. In the swampy regions on the Mississippi, wild-geese, ducks, herons, swans, etc., abound. Snakes, lizards, toads, frogs, and turtles are also numerous.

The climate of the state, with the exception of the river bottoms and swampy regions of the s.e., is generally healthful, though subject to great extremes of temperature. The summers are long, with a mean temperature of about 76°, the mercury sometimes marking 95°. The winters are cold and raw, with piercing winds, and a mean temperature of about 34°, sinking at times to 12°.

The soils of the state present a great variety. The alluvial deposits on the Mississippi and the Missouri are very rich and productive. The swamps, when drained, yield enormous crops. The prairies of the n.w. are very fertile, having lost little of their productive qualities after 30 years of culture. The mixed prairie and rolling lands n. of the Missouri, on the e. side, produce wheat and tobacco of the best quality. They are also good for fruits. The lands in the s.w. part of the state are good for grapes, peaches, pears, and apples, and for most of the cereals. The least productive soil in the state is in the region between s.w. Missouri and the swampy lands on the Mississippi. This region is traversed by the Ozark mountains, and much of it lies at an elevation of from 1200 to 1500 ft. above the sea. Some of the valleys are rich, but the hills are only moderately productive. Near the Arkansas line is a narrow belt of fair cotton land. Only about one-third of the area of the state is cultivated, and much of the uncultivated portion is heavily timbered. The trees most common are the cottonwood, hickory, black walnut, oak of many varieties, ash, walnut, sugar-maple, hackberry, elm, sassafras, dogwood, cedar, cypress, poplar, sweet gum, etc., and, near the Arkansas border, pine.

In 1870 there were in Missouri 21,707,220 acres of land in farms, of which 9,130,615 acres were improved and 12,576,605 unimproved. The estimated value of farms was \$392,908,047; of farming implements and machinery, \$15,596,426; value of farm productions, \$103,035,759; of orchard products, \$2,617,463; of market-gardens, \$406,655; wages paid, \$8,797,487; forest products, \$793,343; value of home manufactures, \$1,737,606; of animals slaughtered or sold for slaughter, \$23,626,784; value of all live stock, \$84,285,273; number of horses, 493,969; mules and asses, 111,502; milch cows, 393,515; working oxen, 65,825; other cattle, 689,355; sheep, 1,352,001; swine, 2,306,430. The wheat crop was 14,315,926 bushels; rye, 559,532 bushels; corn, 66,034,075 bushels; oats, 16,578,313 bushels; barley, 269,240 bushels; buckwheat, 36,252 bushels; tobacco, 12,320,483 lbs.; cotton, 1,246 bales; wool, 3,649,390 lbs.; peas and beans, 43,986 bushels; Irish potatoes, 4,238,361 bushels; sweet-potatoes, 241,253 bushels; hay sold, 615,611 tons; milk sold, 857,704 gallons; clover seed, 2,494 bushels; hops, 19,297 lbs.; hemp, 2,816 tons; flax, 16,613 lbs.; flax seed, 10,391 bushels; wine, 326,173 gallons; butter, 14,455,825 lbs.; cheese, 204,090 lbs.; maple sugar, 116,980 lbs.; maple molasses, 16,347 gallons; sorghum molasses, 1,730,171 gallons; beeswax, 35,248 lbs.; honey, 1,156,444 lbs. In 1878 the live-stock statistics were: Mules, 191,900, valued at \$8,324,622; oxen and other cattle, 1,632,400, valued at \$24,382,080; swine, 2,817,000, valued at \$6,226,896; horses, 627,300, valued at \$25,022,997; cows, 516,200, valued at \$9,188,360; sheep, 1,296,400, valued at \$2,061,276; total value of live stock, \$75,208,231.

The statistics of manufactures in the state in 1870 are as follows: Number of establishments, 11,971; persons employed, 65,354, of whom 55,904 were males above 16—3,884 females above 16, and 5,536 were below that age; capital invested, \$80,257,244:

wages paid, \$31,055,445; products, \$206,213,429. The principal branches of manufacture, with the value of their products respectively, were: Blacksmithing, \$2,257,211; agricultural implements, \$1,588,108; bags other than paper, \$5,037,250; boots and shoes, \$4,099,552; bakery products, \$3,100,053; brick, \$3,148,884; bridge-building, \$2,072,620; carpentering and building, \$15,561,086; railroad cars, \$2,200,150; carriages, etc., \$3,253,734; men's clothing, \$7,271,962; women's clothing, \$1,080,170; confectionery, \$1,274,855; cooperage, \$2,234,581; flouring and grist-mill products, \$31,837,352; furniture, \$3,303,024; iron, forged and rolled, \$1,455,006; pig-iron, \$2,991,618; iron castings, \$1,182,255; stoves, heaters, and hollow ware, \$2,981,350; distilled liquors, \$6,519,548; lumber, planed and sawed, \$7,220,452; sugar refined, \$4,135,250; animal oil, \$4,100,000; patent medicines and compounds, \$2,073,875; printing and publishing, \$3,837,250; saddlery and harness, \$5,424,635; sash, doors, and blinds, \$2,563,416; soap and candles, \$1,794,100; tin, copper, and sheet-iron ware, \$2,945,460; tobacco in all forms, \$10,415,604.

The mining industries of Missouri, with their products respectively, in 1870 were: Coal, \$2,011,820; iron ore, \$491,496; lead, \$201,885; stone, \$767,312—total, \$3,472,512; capital invested, \$3,489,250; persons employed, 3,423. The lead product of 1873 was 27,676,320, valued at \$1,902,747. The lead industry of St. Louis amounts to nearly \$5,000,000. The iron ore mined in the state in 1872 was 509,200 tons; pig-iron produced in the same year, 87,176 tons; zinc ores raised, 11,582,440 lbs. The wine products of the state are believed to have been nearly or quite quadrupled in the last few years.

The number of miles of railroad within the state in 1875 was 3,521; the main lines being the St. Louis, Kansas City and Northern, the Pacific of Missouri, and branches, the St. Louis and Iron Mountain, and branches, the Atlantic and Pacific, the Kansas City, St. Joseph and Council Bluffs, the Hannibal and St. Joseph, the Missouri, Kansas and Texas. The cost of roads and equipments was \$141,791,312. The railroad assessment of the state for taxes in 1879 amounted to \$26,270,096. The total earnings of the roads in 1878 amounted to \$22,415,500. There is a total of about 1000 m. of steel-rail track in the state.

The bonded debt of the state in 1877 was \$17,248,000. The amount of property in the state subject to taxation was \$614,716,333, of which about \$30,000,000 was railroad property.

The commerce of Missouri is extensive. Under the act allowing foreign merchandise to be taken in bond direct to interior ports, a large trade has sprung up in St. Louis, amounting in 1873 to \$1,167,690. St. Joseph and Kansas City are also ports of delivery, belonging to the department of Louisiana. A great portion of the produce not only of this state, but of other portions of the northwest, passes through St. Louis on its way to market, making that city the center of a vast domestic trade.

In 1875 there were in the state 35 national banks, with a capital of \$9,195,300, and a circulation of \$5,908,379. There were at the same time 45 state banks, with a capital of \$9,300,000, and 56 savings banks, with capital and deposits amounting to \$9,118,306; also 92 private banking-houses. The number of fire and marine insurance companies in 1874 was 35, of which 18 were mutual. The number of life insurance companies was 5, of which 2 were mutual; the 3 joint-stock companies had an aggregate capital of \$616,300, and the assets of all the companies amounted to \$12,589,884.

The school system of Missouri ranks among the best. In St. Louis, and some of the other cities, the schools are carefully managed, and of an excellent character. The report of the state superintendent for Jan. 1, 1875, gives the following statistics: Number of school districts, 7,483; school-houses, 7,224, valued (aside from those of St. Louis) at \$4,188,337; school property in the whole state, \$6,774,506; number of schools, 7,461 primary, 86 high, and 282 colored—total, 7,829; number of teachers, males, 6,281; females, 3,395—total, 9,676; average monthly wages of male teachers, \$39.87; of female teachers, \$30.36. The school funds of the state amount to \$3,037,440. The district school-tax in 1874 produced the sum of \$1,514,387. The whole amount expended for school purposes in the state in that year, outside of St. Louis, was \$2,189,860. The number of persons of school age in the state (5 to 21) was 708,354, of whom 38,447 were colored. There were three normal schools for white teachers, one at Kirksville in the n. part of the state, one at Warrensburg, in the s., and one at Cape Girardeau, in the s.e. Colored teachers are trained at the Lincoln institute. The institutions for higher education are the university of Missouri at Columbia, with collegiate, normal, agricultural, and mechanical, mining and metallurgical, legal, medical, and chemical departments; Washington university (non-sectarian) at St. Louis, with an endowment of \$200,000, and buildings and grounds valued at \$500,000; college of Christian brothers, at St. Louis, Roman Catholic; St. Louis university, Roman Catholic; McGee college, at College Mound, Cumberland, Presbyterian; Christian university at Canton, under the patronage of the Disciples; Central college at Fayette, Southern Methodist; Hannibal college at Hannibal; Drury college at Springfield, Congregational; St. Joseph's college at St. Joseph, Roman Catholic; St. Paul's college at Palmyra, Protestant Episcopal; St. Vincent's college at Cape Girardeau, Roman Catholic; Lewis college, Glasgow, Methodist; William Jewell college at Liberty, Baptist; Woodland college at Independence, Disciples; Westminster college at Fulton, Presbyterian. There are 4 theological schools, belonging respectively to the Lutherans, Roman Catholics, Presbyterians, and Baptists; 2 schools of law; 5 of medicine, 1 one of which is homeopathic; 1 school of pharmacy.

and 1 of dentistry. There are numerous academies, seminaries for girls, and other private schools of a high character, most of them under the control of some religious sect.

The public institutions for special classes are the asylum for the deaf and dumb at Fulton; the school for the blind at St. Louis; the state lunatic asylum at Fulton; the state penitentiary at Jefferson City; 13 orphan asylums, 8 of them under Roman Catholic control; an industrial school for girls, and a home for the friendless, at St. Louis.

The libraries of the state in 1870 numbered 5,645, and contained in all 1,065,638 volumes; 1,742 of these libraries, containing 498,996 volumes, were public; and 3,903, containing 566,642 volumes, were private.

The number of newspapers and periodicals in 1870 was 279, of which 21 were dailies, 5 tri-weeklies, 225 weeklies, 3 semi-monthlies, 23 monthlies, and 1 quarterly. In 1872 the whole number had increased to 289.

The number of church organizations in 1874 was 4,537; of church edifices, 3,369; value of church property, \$13,002,900; number of church members, 264,673. The chief denominations, in numerical order, are: Methodists, Baptists, Disciples, Presbyterians, Roman Catholics, Cumberland Presbyterians, United Brethren in Christ, Lutherans, Episcopalians, Congregationalists, Freewill Baptists, German Reformed, Unitarians, Evangelical association, Jews, Swedenborgians, Friends.

The capital of the state is Jefferson City. The principal city, St. Louis, is the largest in the Mississippi valley. The next largest cities and towns in the state are Kansas City, St. Joseph, Hannibal, St. Charles, Springfield, Sedalia, and Lexington.

The constitution now in force was adopted in 1875. The governor and other state officers are elected for a term of 4 years. The state election occurs biennially on the Tuesday next following the first Monday in November. The legislature, composed of a senate and house of representatives, meets biennially on the first Wednesday after the first day of January. The supreme court consists of 5 judges, elected by the people for a term of 10 years, the oldest in commission being chief-justice. The legislature divides the state into such a number of circuits as it may judge the public convenience requires, and the circuit court is composed of one judge for each of such circuits, elected by the people of said circuit for a term of 12 years. The judges of the county courts are elected by the several counties, as are also the judges of probate. The compensation of the governor, state officers, members of the legislature, and of the judges of the courts, is fixed by the legislature. Special courts are provided for the city of St. Louis.

The electoral votes of Missouri for president and vice-president of the United States have been cast as follows: 1824, 3 for Clay and Jackson; 1828, 3 for Jackson and Calhoun; 1832, 4 for Jackson and Van Buren; 1836, 4 for Van Buren and Johnson; 1840, 4 for Van Buren and Johnson; 1844, 7 for Polk and Dallas; 1848, 7 for Cass and Butler; 1852, 9 for Pierce and King; 1856, 9 for Buchanan and Breckenridge; 1860, 9 for Douglas and H. V. Johnson; 1864, 11 for Lincoln and Andrew Johnson; 1868, 11 for Grant and Colfax; 1872, 6 for T. A. Hendricks, 8 for B. Gratz Brown, and 1 for David Davis, for president; and 6 for B. Gratz Brown, 5 for G. W. Julian, 3 for J. M. Palmer, and 1 for W. S. Groesbeck, for vice-president; 1876, 15 for Tilden and Hendricks; 1880, 15 for Hancock and English.

MISSOURIA INDIANS, or **MISSOURIS**, a tribe thus named by the Illinois Indians, but whose designation for themselves was Nudarcha. They were inhabitants of the region of the lower Missouri, and allies of the Illinois, and afterwards of the French. In 1725 some of the chiefs of this tribe went to France with the French commander De Bourgmont, and a sergeant in the command of the latter married a girl of the tribe. Yet this did not prevent the Missourias from assaulting their allies, and the French—a fort on an island in the river—was attacked by them, and the entire force massacred. The French and Missourias afterwards resumed their friendly relations, but the tribe never willingly accepted the English. They became greatly reduced, however, by small-pox and otherwise, and in 1805, when Lewis and Clarke were in their country, they numbered only about 300 souls. They abandoned their old camping-ground and dwelt with the Otoes, and both these tribes were eventually removed to the Big Blue. Their number, which was 708 in 1862, had been reduced, ten years later, to 464.

MISSOURI COMPROMISE, the proviso contained in the bill admitting Missouri into the union, Feb. 28, 1821. Up to the time when the bill for the admission of Missouri was brought before congress in the session of 1818-19, an equal number of slave-holding and non-slave-holding states had been admitted. Vermont, Ohio, Indiana, and Illinois had balanced Kentucky, Tennessee, Louisiana, and Mississippi. After Alabama was allowed to become a state, without prohibiting slavery, and the bill for the admission of the territory of Missouri was introduced, Tallmadge, member of congress from New York, moved an amendment, which was passed by a vote of 87 to 76, prohibiting the further importation of slaves, and emancipating slave children when they should reach the age of 25. A few days afterwards Taylor of New York, by way of compromise, proposed to amend the bill setting off Arkansas into a territory, by a proviso that slavery should not be extended to any part of the territory ceded by France to this country n. of 36° 30' lat. His amendment met with bitter opposition from both northern and southern members, and was withdrawn. The opponents of slavery claimed that the question had been settled by the ordinance of 1787, which, in creating a government for the Northwest

territory, provided that "there shall be neither slavery nor involuntary servitude in said territory otherwise than in punishment for crime." They maintained that the United States did not recognize slave property, whatever might be the laws of certain states; and they urged the authority of Jefferson, who had introduced a bill, in 1784, prohibiting slavery in the territory of the United States, and in such territory as might thereafter be annexed. The slave-holding members, on the other hand, maintained that congress had no constitutional right to prohibit slavery in the territories, and that such a prohibition would violate the provision guaranteeing to the citizen the enjoyment of his property. They declared that the south would go out of the union rather than submit to the proposed restriction. The senate disagreed with the house, and the bill failed to pass. Alabama was admitted in the session of 1819-20, and her admission was followed by that of Maine. Meantime a strong public feeling against slavery had been growing in the middle states and in New England. In 1820 the Pennsylvania legislature resolved that congress had the right to prohibit slavery in the territories; and the legislatures of the other middle states, of Ohio and Indiana, passed resolutions to the same effect. The legislatures of the slave-holding states, on the other hand, opposed any congressional restrictions upon slavery. When congress met, after a long debate the senate, largely through the efforts of Henry Clay, returned the Missouri bill to the house with the clause prohibiting slavery in that state stricken out, but with a new proviso that slavery should not thereafter be allowed n. of 36° 30'. The house struck out the restricting clause by a vote of 90 to 87, and passed the compromise proviso by 134 to 42. The result was to postpone for a time the settlement of the slavery question. The compromise was virtually destroyed by the Kansas and Nebraska bills of 1854.

MISSOURI RIVER (*ante*), drains an estimated territory of 500,000 sq. miles. It joins the Mississippi at lat. 38° 50' 50" n., and long. 90° 13' 45" w. from Greenwich. From the point where the Kansas enters it, its course is nearly e., and within the state of Missouri. Its current, in this part of its course, is about 5 m. an hour. The frequency of snags makes navigation difficult. The banks are thickly covered with wood. Between fort Leavenworth and its mouth three considerable rivers discharge into it—the Kansas, Grand, and Osage, all of which are navigable for 150 to 200 miles. From the Kansas to 40° 38' n. lat. it is the boundary between Missouri and the Indian territory; and thence to the Big Sioux, between the Indian territory and Iowa. The Platte discharges into the Missouri through three channels, its waters having made a delta at its mouth. Before the Platte, at least five smaller streams—the Big and Little Nemaha, the Nodaway, the Nishnabotana, and the little Tarkio—empty into the Missouri. The course of the river, from the mouth of the Platte to the Kansas, and from fort Pierre to the Big Sioux, is s.e. Its general direction for the first 500 m. is n.; then it flows e.n.e. till it joins the White Earth, from whose mouth its general course is s.e. At a distance of 2,575 m. from its mouth occur the Great falls, where it descends 357 ft. in 16½ miles. The highest of these falls is 87 ft., and between and below them is a series of rapids. At a distance of 1216 m. from its mouth it is joined by the Yellowstone, its largest tributary; at 1310 m. from its mouth, by the Cheyenne; at 1130 m. from its mouth, by the White; at 853 m., by the Big Sioux; at 600 m., by the Platte; at 340 m., by the Kansas; at 240 m., by the Grand; and at 133 m., by the Osage. It is subject to two annual floods, one caused by the melting of the snow on the alluvial prairies, and occurring in May; the other, occurring in June, is caused by the melting of the mountain snows.

MISSOURI UNIVERSITY OF, at Columbia, near the center of the state, was organized in 1840. It has received the avails of Missouri's portion of the national grant of land made by congress in 1862 for the establishment of colleges of agriculture and the mechanic arts, and upon this foundation it was reorganized in 1866. It embraces seven departments:—1. The college proper, founded in 1840; 2. the normal school, opened in 1868; 3. the agricultural and mechanical college; 4. the school of mines and metallurgy at Rolla, established in 1871; 5. the college of law, organized in 1872; 6. the college of medicine, organized in 1873; 7. the department of analytic and applied chemistry. The university is governed by a board of curators, appointed by the governor of the state with the advice and consent of the senate. It is open to students of both sexes. It had, in 1878, 20 instructors; and, in all the departments, 418 students. Samuel S. Laws, LL.D., president.

MIST. See Fog.

MISTAKE (*ante*), in law, is defined by Story as some unintentional act, omission, or error, arising from ignorance, surprise, imposition, or misplaced confidence. In courts of equity, as of law, the maxim applies, *Ignorantia facti excusat; ignorantia juris non excusat*—ignorance of the fact, not of the law, excuses. Thus where one word has by clerical mistake been substituted for another, equity will remedy the mistake; but where the parties have knowingly used a certain form of language believing that its legal effect is different from what it is in reality, they have no such remedy. If the parties be ignorant as regards a fact and aware of their ignorance, yet intend to risk the result, or, knowing the facts, intend to compromise both the law and the facts, then courts will not regard the fact that one party profited less by the contract than he had expected. Where an estate was supposed by both vendor and vendee to belong to the vendor under

the law of real property, and was sold in that belief, the court, notwithstanding that the mistake seemed to be one of law, ordered the purchase-money to be refunded. A mistake as to the law of a foreign country is considered to be of fact and not of law, as public policy does not make it necessary that a citizen should be acquainted with the laws of other countries than his own. A trifling or immaterial mistake will not be regarded as ground for disturbing a written agreement. Specific performance will not be enforced when it is clear that the defendant through a mistake not resulting from mere carelessness has entered into a contract materially different from what he had intended. The instrument or contract may be ordered to be re-executed, or may be rescinded altogether. Thus where a solicitor, in writing a conveyance, inserted double the sum intended as purchase-money, he was compelled to re-execute the deed. An award of arbitrators based on a mistake of fact will be rescinded by a court; and even when based on a mistake in law, if the questions of law were not especially referred to them. An important exception to the rule that mistake of law does not excuse exists in those cases where the defendant has voluntarily entered into a promise to perform some act, such as paying a note or accepting a bill of exchange, *because* he supposes himself legally bound to do so, the fact being that he is not. That is to say, no mere waiver of a legal defense, ignorantly made, will compromise the rights of the maker. Often an instrument may be so *construed* by the court as to carry out the intentions of the parties, but in such case the construction must be supported by the instrument itself and not by external evidence; thus where there is a deed of certain land, it is allowable to explain what is meant by the description of boundaries or the relative ownership of several vendees; but if it be alleged that one piece of property has been mistakenly described in place of another, the deed cannot be rectified by mere construction of a court of law, but special action must be had in equity. Where there is any element of fraud or surprise involved, or where the case is one connected with trusts, equity will go very far in correcting the results of mistakes.

MISTRAL, FRÉDÉRIC, b. in Provence, near Saint-Remy, 1830; son of a rich farmer; educated at the colleges of Avignon and Montpellier, and student of law, but not thereafter practicing it. His fame rests on his devotion to the revival of Provençal literature, especially poetry. Co-laborer in 1852 on the journal *Li Prouvençalo*, he became known at once both as critic and poet. His poems are *La Belle d'Août*; *La folle Avoine*; *l'Ode au Mistral*; *Amertume*; *La Course de Taurreau*; *Mirville*; and *Calendin*.

MITAU. See MITTAU, *ante*.

MITCHEL, JOHN, 1815-75; b. Ireland; son of a Unitarian minister; graduated in 1836 at Trinity college, Dublin; and having been admitted to the bar, practiced for several years, when he removed to Dublin and became editor of the *Nation*. He now began to display a rebellious spirit, and wrote articles of a revolutionary tendency, thus falling under the suspicion and displeasure of the government. He was at this time in partnership with Gavin Duffy, but quarreled with him, and about 1847 originated the publication entitled *The United Irishman*, which was suppressed after a brief existence, and Mitchel was sent to Australia under sentence for 14 years. He escaped from the penal colony Jan. 3, 1852, and succeeded in getting transportation to New York, where he founded a weekly newspaper called the *Citizen*. He suffered from the climate, and afterwards took up his residence in Tennessee, publishing there a paper called the *Southern Citizen*, which became notorious from its open advocacy of the re-establishment of the slave trade. During the rebellion he was in Richmond, Va., where he edited the *Examiner* newspaper. He returned to New York at the close of the war; made a visit to Ireland; and, in 1875, after he had again settled in New York, was returned to parliament from Tipperary, but being disqualified, did not take his seat. He once more went to Ireland, however, where he died. He published several works upon Irish subjects.

MITCHEL, ORMSBY McKNIGHT, LL.D., 1810-62; b. Ky.; received an excellent education when very young, being a good Greek and Latin scholar and mathematician when only 12 years of age. He entered West Point as a cadet in 1825, and after graduating in 1829, acted as assistant professor of mathematics in the military academy during the succeeding two years. He practiced law in Cincinnati from 1832 to 1834; and for the next ten years was professor of mathematics, philosophy, and astronomy in the Cincinnati college. In 1836 and '37 he was chief engineer of the Little Miami railroad. He interested himself greatly in astronomy, and took an important part in procuring the erection of an observatory in Cincinnati, of which, when completed, he became the director, combining with this position, in 1859, the directorship of the Dudley observatory in Albany. On the outbreak of the rebellion he entered the military service, being commissioned a brig.gen. of volunteers in Aug., 1861, and ordered to take command of the department of Ohio. He received his promotion to a major-generalship on account of a brilliant movement in April, 1862. He made a forced march into Alabama, and after a sharp engagement near Bridgeport, captured the railroad between Corinth and Chattanooga. In September he was ordered to the command of the department of the south, but before he had time to commence active operations, was attacked by yellow fever, and died. Gen. Mitchel had obtained a high reputation as an astronomer, and was remarkably successful as a mechanic in the construction of astronomical apparatus and instruments of precision. He made several important astronomical discoveries, including,

with exactness, that of the period of rotation of the planet Mars. He wrote *The Planetary and Stellar Worlds*, and a *Popular Astronomy*; and, as early as 1846, published an astronomical periodical entitled *The Sidereal Messenger*.

MITCHELL, a co. in s.w. Georgia, having the Flint river on the w. and n.w.; 500 sq.m.; pop. '80, 9,392. It is intersected by a division of the Atlantic and Gulf railroad. The soil is generally fertile and the surface level. Productions are Indian corn, oats, sweet-potatoes, butter, cotton, and sorghum molasses. Co. seat, Camilla.

MITCHELL, a co. in n.e. Iowa, bounded on the n. by Minnesota; 431 sq.m.; pop. '80, 14,361. It is crossed by the Burlington, Cedar Rapids and Minnesota railroad. The soil is fertile, producing liberally of wheat, Indian corn, oats, barley, potatoes, and hay. There are manufactories of carriages and wagons, and agricultural implements; and woolen, saw, and flour mills. Co. seat, Mitchell.

MITCHELL, a co. in n. central Kansas, watered by the Solomon river; 720 sq.m.; pop. '80, 14,913. The surface comprises prairie land, very fertile; principal product, Indian corn. Co. seat, Beloit.

MITCHELL, a co. of n.w. North Carolina, bounded on the w. and n.w. by the Unaka mountains, which separate it from Tennessee, and on the s.w. by Nolichucky river; 530 sq.m.; pop. '80, 9,435. This county is important for its rich mines of mica, the working of which forms a most valuable industry. Iron and asbestos are also found; and forests of various kinds of timber cover the mountains. The productions are Indian corn, wheat, rye, potatoes, wool, and butter. Co. seat, Bakersville.

MITCHELL, DONALD GRANT, b. Conn., 1814; educated at Yale, and called to the bar. He made a European tour, and published the fruits of his observations in 1847, under the title of *Fresh Gleanings; or, a New Sheaf from the Old Fields of Continental Europe*. This work appeared with the pseudonym of "Ik Marvel," which the author has since retained. He visited Europe during the revolutionary movement of 1848, which suggested his next book, *The Battle Summer*, which came out in 1849. The next year he published anonymously, *The Lorgnette*, a mild social satire. In the same year appeared his *Reveries of a Bachelor*, his most successful book, and which has been translated into French. In 1851 he published *Dream-Life, a Fable of the Seasons*. In 1853 he was appointed U. S. consul at Venice, whence he returned in 1855, and has since lived on a farm at Edgewood, near New Haven. This farm he has made the subject of two of his books, *My Farm of Edgewood*, 1863, and *Wet Days at Edgewood*, 1864. His later publications are *Seven Stories*, 1865; *Doctor Johns*, a novel, which was originally published in the *Atlantic Monthly*; and *Rural Studies*, 1867. His style is modeled upon that of Washington Irving, and though sufficiently graceful, is sometimes felt to lack relief.

MITCHELL, ELISHA, D.D., 1793-1857; b. Conn.; graduated at Yale college in 1813; was tutor there 1816-18; professor of mathematics in the university of North Carolina in 1817-25, and afterwards of chemistry; was ordained a minister in the Presbyterian church in 1821. He was for some time state surveyor. In 1835 he ascended the Black mountains of North Carolina, and ascertained that they were the highest in the United States east of the Rocky mountains, estimating the principal peak, Clingman's peak, to be 6,476 ft. above the sea. In 1844 he again made the ascent, and made the height 6,672 ft. This being disputed, he made a third ascent in 1857 of one of the heights, and was killed by a fall from a precipice. He was buried on its summit. This is called in North Carolina Mt. Mitchell, or Mitchell's high peak.

MITCHELL, JOHN, b. England; a physician who settled at Urbana, Va., about 1700, and gained recognition as a botanist, and after whom the *Mitchelli repens* was named by Linnaeus. In 1755 he prepared a map of the British and French dominions in North America; and he also wrote, among other papers that attracted general attention, *The Contest in America between Great Britain and France*, and an essay on *The Causes of the Different Colors of People in Different Climates*. After his death in London in 1793, a manuscript written by him on the yellow fever in Virginia in 1742, came into the possession of Benjamin Franklin, and was found of much service by Dr. Rush of Philadelphia in his experiments in the epidemic of 1793.

MITCHELL, JOHN I., b. Penn., 1837; was educated at the university at Lewisburg, in Union co., Penn.; and, graduating in 1858, read law and was admitted to the bar. At the outbreak of the rebellion, he enlisted in the 136th Pennsylvania volunteers, and was promoted to the rank of capt. After the close of the war, he settled at Wellsboro, Tioga co., Penn., and practiced law. In 1868 he was elected district-attorney of the county, and having served his term, was, in 1871, elected a member of the Pennsylvania house of representatives. He was chairman of the judiciary committee, served continuously until 1876, and became the recognized leader of the republican party in the house. In 1876 he was elected a member of congress, and was re-elected in 1878, but declined a renomination in 1880. In Feb., 1881, he was elected a member of the U. S. senate for Pennsylvania, after a bitter and protracted contest, in which a number of the most prominent men in the state were candidates.

MITCHELL, JOHN KEARSLEY, 1796-1858; b. Va.; educated at the university of Pennsylvania, and, after making three voyages to China as surgeon of a ship, began to

practice medicine in Philadelphia. In 1824 he lectured on medicine and physiology at the Philadelphia institute, where he became professor of chemistry in 1826. He accepted the chair of the theory and practice of medicine at the Jefferson medical college in 1841. Besides many contributions to scientific periodicals he published: *Saint Helena, a Poem by a Yankee*, 1821; *Indecision and other Poems*, 1839; *On the Cryptogamous Origin of Malarious and Epidemic Fevers*, 1849; and a collection of his essays appeared in 1858.

MITCHELL, MARIA, b. Mass., 1818; of Quaker parents. Her father, a school-teacher in Nantucket, gave much attention to astronomy, in which his daughter at an early age became greatly interested. She devoted study especially to nebulae and comets; and in 1847 she published an account of the discovery of a new telescopic comet, for which she received from the king of Denmark a gold medal. During the next ten years she was employed by the coast survey, and assisted in compiling the nautical almanac. In 1857 she traveled in Europe, visiting the principal observatories and astronomers; and in 1865 she became professor of astronomy in Vassar college. Miss Mitchell is a member of the American association for the advancement of science, and also of the American academy of arts and sciences, of which she was the first female member admitted. A short biography of her may be found in *Woman's Record of Distinguished Women*, by Mrs. Sarah J. Hale.

MITCHELL, NAHUM, 1769-1853; b. Mass.; a descendant of Experience Mitchell, one of the founders of the first New England settlement; graduated at Harvard, class of 1789; was a teacher in early youth, and having studied law was admitted to the bar in 1792, and commenced practice in his native town, East Bridgewater. In 1811 he was appointed justice of the circuit court of common pleas for the s. circuit, and in 1819 chief-justice, holding the office for two years. He was highly esteemed in the community, and by members of the profession in his native state and in Maine, and was placed in many responsible positions. In 1798, and for several consecutive sessions, he was elected representative to the general court; member of congress 1803-5, state senator 1813-14, and member of the executive council 1814-20. In 1839 he was again elected to the general court, this time from Boston, to which city he had removed. In 1827 he was chairman of the railroad commission which surveyed the route of the Boston and Albany railroad. He was at one time librarian and treasurer of the Massachusetts historical society, and was for some years president of the Bible society of Plymouth county. Endowed with musical talent of a high order and a passion for the art, associated with Mr. Bartholomew Brown he published *The Bridgewater Collection of Sacred Music*, for many years the standard musical publication of New England, the sale reaching 100,000 copies. In 1840 he published *History of the Early Settlement of Bridgewater*, with genealogical tables, the first American publication of the kind.

MITCHELL, PETER, Hon., b. New Brunswick, 1824; educated in his native place of Newcastle, served his county two terms (5 years) in the provincial parliament, entering public life in 1856, and was appointed life-member of the legislative council. He became a member of the executive government of New Brunswick in 1858 in the discontented political condition of the British American provinces in relation to the relative political influence of Upper and Lower Canada, and in 1864 suffered defeat with his government, which favored by a large majority a federal union of the whole of British America from the Atlantic to the Pacific, including Prince Edward's Island and Newfoundland, which latter, however, refused to co-operate. He was appointed delegate to Canada and England on this subject and that of the Intercolonial railway from Halifax to Quebec. In 1865, associated with the hon. R. D. Wilmot, mayor of St. John's, he formed an administration in order to test the opinion of the province on the question of confederation, and was president of the executive committee. When the vote was taken, confederation was carried 33 to 8. He was an ardent promoter of British union, and rendered essential service by his writings and public speeches. In July, 1867, he was given the position of minister of marine and fisheries in the cabinet of the Dominion government.

MITCHELL, S. WEIR, M.D., b. Philadelphia, 1829; educated at Jefferson medical college. He has since practiced in Philadelphia, making a specialty of nervous diseases. Among his writings are: *Injuries of the Nerves*; *Nurse and Patient*; *Fat and Blood*; and two volumes of magazine stories.

MITCHELL, SAMUEL AUGUSTUS, 1792-1868; b. Conn.; a writer on geographical subjects; passed his childhood in Connecticut, and removed to Philadelphia, where he labored 40 years in cosmographical research. He prepared text-books of geography for the use of schools, maps and treatises considered superior to all others of their date. In 1846 he published *General View of the World*; in 1851, *Universal Atlas*, 76 sheets, forming a series of 130 maps, plans, and sections; in 1852, *Pocket Maps*, 53 in number;—in all 24 works, 400,000 copies of which have been sold in one year.

MITCHELL, SIR THOMAS LIVINGSTONE, D.C.L., 1792-1855; b. Scotland; son of John Mitchell. His family altered its name of Mitchell upon its intermarriage with the Livingstones. Thomas Mitchell began his service in the British army in the Portugal campaign of 1808, and at the close of the peninsular war had been promoted maj. He was then sent to make surveys and plans of the peninsular battle-fields. In 1827 he

published *Outlines of a System of Surveying for Geographical and Military Purposes*, and was made deputy surveyor-general of New South Wales. Besides the routine work of this office, he led a number of exploring expeditions into the interior of Australia. In 1831-32 he discovered the Pell river and the Nammoiy. In 1835 he traced the course of the river Darling, which he followed, in 1836, as far as the Murray river, with which it unites. In the same expedition he followed the Glenelg river to the ocean. He gave the world the results of his explorations in his *Three Expeditions into the Interior of Eastern Australia, etc.*, which appeared in 1838. He came to England to take charge of this work and of his *Map of the Colony of New South Wales* in their passage through the press, and on the occasion of this visit was knighted. He also received the degree of D.C.L. from Oxford, and was elected to the royal and the geographical societies. On his return to Australia he conducted a fourth exploring expedition, in which he reached 21° 30' south. He followed the Victoria river, which he was the first to find and name, but failed to advance as far as the gulf of Carpentaria, on account of losing his horses from a continued drought. In 1850 he published a school geography for use in New South Wales under the name of *Australian Geography*. His next publication was an account of a new steam propeller which he had invented on the principle of the boomerang. This work was published as the *The Origin, History, and Description of the Boomerang Propeller*. In 1854 he was made a col.

MITCHELL'S PEAK. See BLACK MOUNTAINS, *ante*.

MITCHILL, SAMUEL LATHAM, LL.D., 1764-1831; b. Long Island, N. Y.; graduated doctor of medicine in 1786 in the university of Edinburgh; returned to America in 1787, and studied law for three years; was appointed in 1792 professor of chemistry, natural history, and philosophy in Columbia college. He had at this time a controversy with Dr. Priestley in reference to some of Lavoisier's principles. In 1796 he made a geological and mineralogical tour along the Hudson. In connection with Dr. Edward Miller and Elisha H. Smith he established the quarterly *Medical Repository*, of which he was for 16 years the editor. He was a member of the legislature in 1801; twice a representative in congress, in 1801-4 and 1810-13; and in 1804 U. S. senator. In 1808 he became professor of natural history in the college of physicians and surgeons, and in 1820 of botany and materia medica. He was vice-president of Rutgers medical school in 1826-30. He was somewhat eccentric. He proposed to have the name of this country changed to Fredonia, and in 1804 wrote *An Address to the Freedes or People of the United States*. He published the following works: *Observations on the Absorbent Tubes of Animal Bodies*; *Nomenclature of the New Chemistry*; *Life, Exploits, and Precepts of Tammany, the famous Indian Chief*; *Synopsis of Chemical Nomenclature and Arrangement*.

MITLA, a city in s.e. Mexico, on the plain of Mixtecapan, 15 m. s.e. of Oaxaca. The region is inhabited by the Zapoteco race, and is a city of ruins (Aztec, Mictlan, place of the dead). No positive information has been obtained as to the builders, but it is thought that its extensive ruins of monuments and edifices were the work of the progenitors of the present inhabitants. Its ruined palaces and temples, adorned with artistic sculpture, are well preserved, many roofs being supported by columns. In 1860, in a publication entitled *Charnay's Ruines Américaines*, there appeared a collection of photographs of these ruins.

MITRAILLEUSE, a machine-gun in which 37 or more large-bored rifles are combined with breech action, by means of which a shower of bullets may be rapidly projected by one man. It was invented in Belgium, and adopted by the French emperor soon after the Prussian-Austrian war of 1866. It was the chief cannon of the French artillery during the Franco-German war of 1870. The mitrailleuse existed in a primitive form as early as the 14th c., and well-preserved specimens may be found in the arsenals and museums of Vienna, Rome, Berlin, Moscow, and Constantinople.

MITRE, BARTOLOMÉ, b. Buenos Ayres, 1821; became an instructor in a military college in Bolivia in 1846 and also a journalist; was next engaged as an officer in the Bolivian army in a war against Peru; then successively as editor, politician, and finally military leader again in the movement of Buenos Ayres against gen. Urquiza in 1852, which resulted in the quasi independence of that province from the Argentine confederation. After returning to peaceful pursuits, he wrote the *Historia de Belgrano*. In 1860, after the re-union of the seceded province to the Argentine confederation, he was chosen governor of Buenos Ayres; and in 1862, when new difficulties with the federal government had brought into existence the Argentine republic in place of the confederation, Mitre was elected president for six years. He was also a candidate again in 1874, but was defeated; after which he headed a rebellion that proved disastrous to his fortunes. Since then he has lived in retirement.

MITRE SHELL. A name applied to the shells of several species of *mitra*, a genus of gasteropods belonging to the family *volutidae* (q.v.). The shells are very beautiful and much prized by collectors, the favorite being the bishop's mitre shell, of the species *M. episcopalis*. In the genus *mitra* the shell is fusiform, thick, spire elevated, acute; aperture small, notched in front; columella obliquely plaited; operculum very small. The animal has a very long proboscis; and, when irritated, emits a purple liquid having a very offensive smell. The eyes are situated on the tentacles or at their base. Over 400

recent and 100 fossil species have been described. In *M. episcopalis* the animal has a narrow foot, compressed and chaunded at its root, nearly square and slightly articulated in front, with a margined furrow, and pointed behind; eyes sessile at the base of the tentacles. The proboscis is twice the length of the shell. The shell is turreted, smooth, white, spotted with bright red; pillar, four plaited; outer lip denticulated at its lower part; epidermis thin. It is found in East Indian seas and islands of the South sea. *M. adusta* has a fusiform shell, turreted, ornamented with longitudinal reddish-brown spots; striae transverse, impressed, rather remote and dotted; pillar fine plaited. It is found at Timor, Vanikoro. There are two varieties. The different species are found at depths varying from the surface to 17 fathoms, on reefs, sandy mud, and sands. They are all inhabitants of warm countries.

MITTERMAIER, KARL JOSEPH ANTON, 1787-1867, b. in Munich, Bavaria; educated at the universities of Landshut and Heidelberg; for two years, 1819-21, he was a professor at Bonn, but the rest of his life was passed as professor of law and jurisprudence at Heidelberg, with the exception of the time occupied as representative of Baden at the provisional Frankfort parliament and occasional pleasure-trips in Italy, which last occasioned his *Italienische Zustände*, a criticism of Italian affairs. In politics Mittermaier was liberal, but would now be considered almost conservative by the radical party. For 20 years, 1820-40, he was a member of the Baden legislature. His greatest claim to distinction, however, lies in his extensive writings on jurisprudence, among which is a complete manual of criminal law, *Lehrbuch des Criminal-prozesses*; and he was an earnest advocate of reform in the German criminal procedure and in prison discipline. The number of his published writings is very large, including many treatises on branches of law, discussions on all the important questions of his time connected with jurisprudence, and especially on trial by jury and the penal code. He also published a translation of Francis Lieber's *Letter on Anglican and Gallican Liberty*, and edited the German translation of the same author's *Civil Liberty*.

MITTIMUS (*ante*), in criminal practice both in England and in the United States, is a written mandate issued by a competent judicial officer, enjoining an officer of the law to safely convey the body of a prisoner to some place of imprisonment, and also commanding the keeper of such jail to receive and retain the prisoner for a certain time, or until released in course of law. A mittimus is more commonly called a commitment. The document must be issued in the name of the people or of the magistrate, must be dated, is usually sealed, and must describe with reasonable certainty the name or, if not known, the person of the accused, and the criminal offense with which he is charged. Technical nicety in the language of the mittimus is not necessary. The precept passes to the jailer, who is bound to receive the prisoner, and may be indicted for refusal, in which case the officer is bound to retain custody of the accused. It has been held, where a mittimus had been granted on evidence by a justice of the peace, and it was handed to the accused person with the request that he would carry that note to the jailer, and he, in ignorance of its nature, did so, that his detention was in all respects legal.

MITTOO, a country of central Africa, bounded n. by the territory of the Dinka, s. by that of the Nyamnyam, and lying between the Rohl and Roah rivers. The soil is fertile, producing various cereals, tuberous plants, and leguminous and oily fruits, without much labor. The wearing of iron and copper ornaments is common to both sexes, and both are fond of chains for fastening trinkets to their bodies. A thick iron chain on the neck indicates wealth, and some wear four of them. The people have goats and poultry, but no cattle; they eat the flesh of dogs, and are in contempt called Dyoor, or savages. In war they use bow, arrow, and spear, but not shields.

MIXED CADENCE, in music, is a peculiar way of concluding a musical period or passage, which differs from the perfect, imperfect, and plagal cadence. The mixed cadence, which is most frequently used, consists of the sub-dominant harmony followed by that of the dominant.

MIXED MATHEMATICS, a name given the purely scientific principles of mathematics when applied and intermixed with physical considerations. Such are hydrostatics, optics, and navigation.

MIXTECAS, the name of an ancient Indian race, said to have migrated from the north and settled in Mexico, populating that part of the republic which is now included in the states of Puebla, Guerrero, and Oajaca. They were an industrious people; were divided into independent bands, each with its own chief; and were inclined towards an advanced state of semi-civilization. They built cities, temples, and fortifications, the remains of which are significant of their capacity and progress. They possessed a religion, and conducted certain rites in mountain caves, and they included the idea of a heaven, which they named Sosola, in their theology. This race still exists, retaining a portion of its ancient territory, but has been driven from Puebla by the Mexicans, and in some instances forced to retire into Guatemala. Their language is similar to the Zapoteca, but simpler, although it has a number of dialects. The Mixtecas inhabit a region surrounded by mountain ranges, and are peaceable and industrious, not concern-

ing themselves in the political disturbances which are so frequent in Mexico. Their principal cities are Tepascaluta, Yanhuistlan, Ilaxiaco, and Huajuapán.

MIXTURE, an organ stop, consisting of from two to five ranks of small metallic pipes. It is generally found in large organs, and resembles the sesquialtera and furniture stops, except that it is much higher and shriller. Like other compound stops, the two smaller ranks of the mixture stop change on the upper part of the organ scale into an octave lower. This is necessitated from the fact that the pipes in their upper ranks would produce too small a volume of sound.

MOABITES (*ante*), the descendants of Moab, son of Lot, whose primitive dwelling-place was Zoar, on the south-eastern border of the Dead sea. Gradually supplanting the original inhabitants, they obtained possession of the fertile highlands—extending 40 or 50 m. in length by 10 in width on the e. of the Dead sea—and of the plains below. From the most elevated part of this territory they were expelled by the Amorites, who allowed them to retain only the southern half of the table-lands and the plain. This restricted region was strongly fortified by nature, having on the n. the chasm of the Arnon; on the w. cliffs, almost perpendicular, by the side of the Dead sea, intersected only by a few steep and narrow passes; and on the s. and e. semi-circular hills, through which pass only a branch of the Arnon and the wadys or valleys that go down to the sea. Beyond these hills lay a vast extent of uncultivated pasture-grounds, described in the book of Numbers as the wilderness which faced Moab on the east. Through this Israel seems to have approached the promised land, without traversing Moab itself, but taking their position n. of the Arnon. Here they remained during their operations against Bashan. It was at this time that Balak, king of Moab, in his fear of Israel, sent for Balaam to curse them, and for the Midianites to make war against them. From the plains of Moab Moses ascended to the top of Pisgah to view the promised land; in the land of Moab he died; somewhere in a valley of that land, over against Beth-peor, he was buried; and in the plains of Moab all Israel wept for him 30 days. After the conquest of Canaan, Eglon, king of Moab, with the assistance of the Ammonites and Amalekites, gained possession of Jericho and ruled over Israel 18 years. From this bondage they were delivered under the leadership of Ehud, a Benjamite, who killed Eglon secretly, and aroused the people to a victorious conflict in which 10,000 Moabites were slain. Afterward peace and friendship between the nations were restored. While the judges ruled, Jews sometimes took refuge in the land of Moab; and long afterward, when David was hard pressed by Saul, he obtained from the king of Moab a temporary asylum for his father and mother. Saul waged war successfully against the Moabites, and David made them tributary. After the revolt of the 10 tribes, the kingdom of Israel levied this tribute, and when, on the death of Ahab, the Moabites refused to pay it, Jehoram, with the help of Judah and Edom, attempted to hold them in subjection. The Moabites, in revenge, formed a powerful confederacy against Judah, but the different armies which composed it, panic-stricken, turned their arms against each other. Still later, they acted against the Jews as auxiliaries of the Chaldeans, under Nebuchadnezzar: yet this monarch, according to Josephus, five years after the capture of Jerusalem, made war also upon them, and subdued them. After the return of the Jews from captivity, they formed an intimate connection with the Moabites by intermarriages, which, however, the zeal of Ezra and Nehemiah broke up. Josephus mentions the cities between the Arnon and Jab-bok as cities of Moab. Thenceforth they were almost lost to view among the Arabians; and for many centuries little was known concerning the region in which they lived. Even in more modern times few travelers ventured to explore it. Seetzen, in 1806, at the risk of his life, shed a new and unexpected light upon it. He found many ruined places still bearing the old names. In 1812 Burckhardt made the same tour from Damascus to Karak, and from that point advanced to Petra. From these and subsequent travelers we learn that the plains are covered with the sites of towns on every eminence or spot suitable for one. The land is capable of rich cultivation. The form of fields is still visible, and there are remains of Roman highways which are in some places completely paved, and on which there are mile-stones of Trajan, Marcus Aurelius, and Severus, with the numbers legible upon them. Denunciations against Moab were made by Balaam, Amos, Isaiah, Jeremiah, Ezekiel, and other prophets, who during its highest prosperity foretold that its cities should become desolate without any to dwell in them; and at the present day, while the sites, ruins, and names of many of its ancient cities can be traced, not one of them has been found inhabited by man. At the present time the American engineers of the Palestine exploration society are engaged in making a scientific survey and exploration of the land.

MOABITE STONE, *THE* (*ante*). The authenticity of this stone, disputed on grounds which have little to do with true critical research, is now universally acknowledged. Its date may be taken as 890 B.C., and is almost the same as that of the inscriptions on the lions of Birs Nimrûd, that is, the reigns of Ashurnazirpal and Shalmanezar IV. Its characters are like those of the fourth Malta inscription, and again like that from Nora, in Sardinia. We have, then, in the 9th c. B.C., one single and same type of letter in use for current purposes from Sardinia to Assyria, which, about the 6th or 7th c., gives rise to the second form, or true Phœnician, and to the old Hebrew of coins and gems,

whose modern representative is the Samaritan. The stél of Mesha contains all letters except Teth, and which, showing few dialectic variations, appears to stand, in willingness to express vowels, between the Hebrew and the Assyrian, without the parsimony so distinctive of the Phenician. There is a translation by Dr. Ginsburg in *Records of the Past*, vol. xi.

MOAWIYAH, Caliph, 610-80, b. Mecca; son of an Arab chief of distinguished birth, and distantly related to Mohammed. He was made governor of Syria in 641, and during his term of office conquered the island of Rhodes, but lost Cyprus. On the proclamation of Ali as the successor of the caliph Othman in 655, Moawiyah revolted, and attempted to make himself caliph. He succeeded in getting control of most of the provinces of the empire, and took possession of Samarcand and Bokhara. His army, after making extensive conquests, was unable, after a long siege and repeated assaults, to capture Constantinople, and in 678 he entered into a treaty of peace. Moawiyah not only exerted absolute control over the Saracen empire, but succeeded in having the caliphate declared hereditary in his family.

MOBERLY, GEORGE, D.C.L., b. St. Petersburg, 1803; son of an English merchant. He was educated at Winchester and Oxford. In 1826 he took the Oxford chancellor's prize for the best English essay, choosing for his subject, *Whether a Rude or a Refined Age is the more Favorable to the Production of Works of Fiction*. He took the degree of M.A. in 1828 and of D.C.L. in 1836. After a connection of some years with Balliol college, as tutor and fellow, he became, in 1835, head-master of Winchester school, where he remained until 1866. He was then presented with the living of Brixton in the isle of Wight, and in 1868 became a canon of Chester cathedral. In 1869 he was consecrated bishop of Salisbury. Of his numerous published works the most important are: *A Few Remarks on the Proposed Admission of Dissenters into the University of Oxford*, 1834; *Sermons Preached at Winchester College*, 1844; and *Sermons on the Beatitudes*, 1860. He delivered the Bampton lectures for 1868, which appeared under the title of *The Administration of the Holy Spirit in the Body of Christ*; and he was one of the "five clergymen" who published revised versions of various books of the New Testament between 1857 and 1870.

MOBILE, a co. in s.w. Alabama, having the state line of Mississippi for its western border, the Mobile bay and the Mobile river flowing into it for its e. boundary, and the gulf of Mexico on the s.; drained by the Escatowpa river; 1500 sq.m.; pop. '80, 48,602—44,709 of American birth. 21,426 colored. It is intersected by the Mobile and Ohio railroad, the New Orleans, Mobile and Texas, and the Mobile and Alabama Grand Trunk. Its surface is generally level, a large proportion being covered with pine forests growing on sandy hills. Its climate is healthy, and the water is pure. Live stock is raised. All the products of the southern states are found here, the soil being a productive, sandy loam. Lumber and rice are the chief products. Dauphin island lies directly s., the site of a French settlement in 1702, called Massacre island from the quantities of bones found there, and was the occasional seat of the colony of Louisiana in early times. From its county seat steamboats run to Montgomery, Tuscaloosa, and New Orleans, carrying on an important commerce. Its bay will admit vessels of 21 ft. draught, and the harbor of Mobile vessels drawing 13 ft., and cotton is largely exported; also, cigars, staves, shingles, resin, and turpentine. Its industries include the manufacture of tin, copper, engines and boilers, tar, and turpentine. Seat of justice, Mobile.

MOBILE (*ante*). The city is 6 m. in length by 2 or 3 broad; pop. '80, 31,205; a decline from 1870 of 729. It is chiefly inhabited along the line of the river and to a distance of about a mile inland; is lighted by gas, and has an excellent water supply from a distance of 5 m.; it has also sufficient horse-railroad facilities for its local need. Mobile is connected with the general railroad system of the country by the Mobile and Ohio, Mobile and Montgomery, New Orleans, Mobile and Texas, and Alabama Grand Trunk railroads. There are also steamers to Montgomery and other river towns.—The following tables display the trade of Mobile from 1867-68 to 1874:

RECEIPTS AND SHIPMENTS—BALES OF COTTON.

Years.	Receipts.	SHIPMENTS.		
		To Foreign Ports.	To Domestic Ports.	Total.
1868-69.....	230,621	163,154	81,191	247,348
1869-70.....	306,061	200,838	97,685	298,523
1870-71.....	404,673	287,074	130,429	417,508
1871-72.....	288,012	137,977	157,652	295,629
1872-73.....	332,457	132,130	197,131	329,261
1873-74.....	299,578	132,367	172,222	304,261

VALUE OF EXPORTS AND IMPORTS.

Years.	Exports.	Imports.
1867.....	\$22,101,601	\$385,530
1868.....	22,611,973	566,225
1869.....	20,541,450	511,297
1870.....	22,422,631	1,447,516
1871.....	21,874,703	1,811,614
1872.....	13,954,600	1,761,657
1873.....	12,249,866	1,097,164
1874.....	10,282,734	886,411

By these tables it is to be observed that from 1870 to 1874 there was a general decline in the foreign trade of Mobile, as there was a falling off in the population between 1870 and 1880, according to the tenth decennial census. The early history of this city displays more than the usual proportion of disturbing influences. Originally colonized by the French, it was long the most important point in the Louisiana settlement. It was attacked by famine and by epidemic; and in 1706 was the scene of that exceptional revolt known as the "petticoat insurrection," when the women of the place became dissatisfied with Indian corn as their staple article of food, and threatened rebellion. A disastrous hurricane, accompanied by a flood, nearly destroyed the settlement in 1711, and necessitated its removal from the place where it then stood, supposed to have been a point some 20 m. from its present location. By the treaty of Paris in 1763, Mobile was transferred to the British government; but twenty years later it was ceded to the Spanish government, with all the rest of the British possessions on the gulf, and remained in the possession of Spain until 1812, when it was surrendered to gen. Wilkinson. In 1819 it was incorporated as a city. From Jan. 11, 1851, to April 11, 1864, Mobile was in the hands of the confederates. On Aug. 5, in the latter year, admiral Farragut, with his fleet, passed up Mobile bay, and the memorable engagement with the forts and the confederate ships ensued, resulting in the destruction or capture of the latter, and the surrender of forts Gaines and Morgan. Early in the following spring the place was fully invested, and the remaining fortifications carried by assault.

MOBILE BAY (*ante*), an estuary of the gulf of Mexico, in the s.w. portion of the state of Alabama. The island of Dauphin lies on the w. of the entrance, and on the e. is Mobile point, the station of a light-house with a revolving light 55 ft. high. It has an outlet on the s.w. through Grant's pass, communicating with Mississippi sound, used by steamers of light draught, and the regular course of the Mobile and New Orleans steamers. The bar, 4 m. seaward, will admit vessels of from 18 to 20 ft. draught. The depth of the bay is from 12 to 14 ft. more shallow in the n. portion than in the s., the anchorage for the cotton fleet being near the entrance, where they are loaded by lighters from Mobile. It is fed by numerous affluents of the Alabama river, flowing into the n. portion, over mud flats, changing with each season, and increasing the sedimentary deposits of the bay. At Choctaw pass, where the Mobile river enters the bay, a channel through the bar is maintained by dredging, and similar means render the Dog river navigable. Its margins are thickly wooded with groves of live oak and magnolia, especially near the n. extremity, and pine forests crown the high bluffs which rise in other portions.

MOBILE POINT, at the e. extremity of the entrance to Mobile bay, is the end of a long, narrow strip of sand which stretches between Navy Cove and the bay of Bon Secours to the n., and the gulf of Mexico to the south. Fort Morgan is situated here, on the ground once occupied by fort Bowyer. The latter fort, which was rudely and unscientifically built, was attacked from the sea in Sept., 1814, by a British squadron of 2 brigs, and 2 sloops of war, and on the land by a force of 130 marines and 600 Indians. The American garrison, numbering but 130 men, under maj. Lawrence, and defended by 20 pieces of artillery, sustained for 3 hours the attack of the British, who were forced to withdraw with a loss of 232 killed and wounded; and their flag-ship was grounded and burned. The American loss was 8. Fort Bowyer was finally captured by the British, Feb., 1815.

MOBILE RIVER (*ante*), formed in the s. extremity of Clarke co., Ala., is the boundary line between the counties of Mobile and Baldwin, and is navigable by large steamboats. Throughout its course it takes a s. direction, and, 6 m. below the junction of the rivers which form its head, it divides into two branches; the e. being called Tensas, the w. Mobile, the latter a name derived from the *Mauvilians* or *Mobilians*, a tribe of Indians.

MÖBIUS, AUGUST FERDINAND, 1790-1868, b. Germany; educated at Leipzig, where he was professor of astronomy from 1815. He reorganized the Leipzig observatory, and published a number of astronomical treatises, of which the best known are *Elements of Celestial Mechanics*, 1843, and *Principles of Astronomy*. His *Manual of Statics* treats of the relation between geometry and statics.

MOCCASIN SNAKE or WATER MOCCASIN, also called *cotton mouth*, the *ancistrodon piscivorus*, a venomous serpent inhabiting the southern part of the United States. It has

a length of about 2 ft.; color dark brown above and a gray belly. It lives in swamps and wet places and frequents the water. It is one of the most aggressive of all serpents, and its bite is of the most dangerous character.

MODE (*ante*), in music, a term applied to the two varieties, major and minor, of the diatonic scale, or series of tones employed in modern music. It is more rarely used for key, as "the twelve major and twelve minor modes or keys." In the old Greek music each note could become, as in the modern, the key-note of a new key or scale; but, as there was no introduction of new semitones, this change of key became a change of mode in the same sense as our major and minor. At first there were only four Greek modes—the Dorian, Phrygian, Lydian, and Myxo-Lydian—but later the Ionian and the Æolian modes were added. St. Ambrose chose the first four for use in the church in the 4th c., and St. Gregory introduced the others 200 years later. They were termed ecclesiastical modes, and gave rise to the eight "Gregorian tones" or chants.

MODENA, formerly a duchy of Italy, in the n., between the Po and the Mediterranean. It was bounded on the n. by Lombardy and the papal states, on the e. by Tuscany and the papal states, on the s. by Tuscany, Sardinia, and the Mediterranean, and on the w. by Sardinia and Parma. Area, 2,371 sq.m.; pop. in 1860, about 600,000. The only rivers of importance are the Marga and the Serchio, which empty into the Mediterranean. The n.e. part of the duchy is fertile, like the Lombard plain, to which it belongs. The vine is extensively cultivated, and the other chief productions are wheat, maize, hemp, and flax. For the history of the duchy, see **MODENA**, the capital. The modern province of Modena comprises the provinces Modena and Frignano of the old duchy. Area, 966 sq.m.; pop. '72, 273,231.

MODOCS, the name of a tribe of American Indians, meaning "enemies," and applied to them by a hostile tribe. The Modocs formerly belonged to the Klamaths (q.v.) but became estranged from them and eventually antagonistic. They are supposed to have originated on the shores of lake Klamath in California. They were dull and lethargic by nature, unimpressible, with little expression to their features, and little energy or activity in their movements and habits. They had the custom of making slaves of their prisoners of war, and of buying and selling these, after the fashion of the ancient Romans and Carthaginians. They had a religion, in which a mythical deity whom they called Komoose, stood in the place of a god. In 1847 and 1849 they are said to have conducted predatory excursions against the whites. A year later capt. Nathaniel Lyon fought a band of these Indians on Clear lake, Modoc co., Cal., and defeated them, inflicting severe and merited chastisement. But by 1852 the Modocs appear to have forgotten this infliction, or remembered it with an unwise disposition for vengeance, for they again indulged in a massacre of white settlers, and invited fresh retribution. This was effected in a manner not according to the laws of civilized warfare, however, for the Modocs were invited by the whites to attend a pow-wow and feast, presumably of a peaceful character, and, of the 46 who accepted the invitation, 41 were ruthlessly murdered. After this act warfare continued for many years. In 1856 a campaign against them was carried out by gen. Crosby, and a large number were slaughtered. This did not put an end to the war, however, which continued until 1864, when they acceded to the stipulations of a treaty, ratified and proclaimed early in 1870. By this treaty they agreed to give up their lands to the U. S. government, and to go upon a reservation to be set apart for them. They did, in fact, go upon two different reservations, but these were already occupied by their enemies the Klamaths, a fact which kept them continually in trouble. Two chiefs had now begun to obtain considerable notoriety, not alone on the frontier, but among the settled states. These were capt. Jack, who was the leader of a band of Modocs that was making itself particularly obnoxious to the whites; and Schonchun, hereditary chief of the tribe, whose followers were less objectionable. In 1868 capt. Jack, with his party, moved to Lost river, where they remained until 1872, when orders were given by the superintendent of Indian affairs to return them to the reservation. Troops from fort Klamath were sent against their camps, and after some fighting they were dislodged, and retreated to a district known as the "lava beds," near fort Klamath, Oregon, where they were enabled to strongly intrench themselves, owing to the peculiar natural formation of the country. On Jan. 17, 1873, the troops under gen. Wheaton entered the lava beds and attempted to drive out the Modocs, but with such ill success that they were even unable to approach nearer to them than a distance of 2 or 3 miles. The troops lost 11 killed and 21 wounded, and were forced to retire. A second attempt was made under the command of gen. Gillem, but this also resulted in failure. Commissioners were now appointed by the government to confer with capt. Jack, and endeavor to bring about a peaceful settlement of the existing troubles. A meeting was arranged for April 11, 1873, which took place according to appointment, but was treacherously concluded by the Modocs, who fired upon the commissioners, with the result of killing outright gen. Canby and Dr. Thomas, and wounding Mr. Meacham, also a commissioner. This act broke up the conference, and a fierce fight ensued, the Modocs resisting desperately until starved out and forced to surrender, an event which did not occur until nearly two months later. The troops during this part of the siege were commanded by gen. Jeff. C. Davis, to whom belongs the honor of having at length forced the stubborn savages to acknowledge their defeat. A military commission was now appointed to try

the chief offenders, and capt. Jack, Schonchin, jr., and two other Modocs were condemned to die. They were accordingly executed at fort Klamath, Oct. 3, 1873. The remainder of the band were retired to a reservation in the Indian territory.

MÆSO-GOTHIC GOSPELS. See ULFILAS (*ante*).

MOGILA, or MOGILAS, PETER, 1597-1646; b. Moldavia; educated at the university of Paris. After serving in the Polish army he went into a monastery at Kiev, and became metropolitan of that town in 1629. He brought to Kiev from Paris the improved methods of study and the more advanced theological studies which were as yet unknown to Russia. He set up a printing press, and founded an academy and a library, to which he gave his own collection of books. With a view to strengthen the Greek church, he published *A Confession of Faith*, which contains an exposition of its doctrines, and which remains a standard treatise on the theology of his church. He also wrote a *Catechism*, a partial hagiography, and a number of dramas in verse.

MOHAMMED IV., 1642-92; b. Turkey; succeeded his father, Ibrahim I., in 1648. He possessed little capacity for power, and spent most of his time in the chase. He was fortunate in having as successive grand viziers two men of extraordinary talents—the Albanian Mohammed Kuprili or Kuperli, and his son, Ahmed Kuprili. Mohammed Kuprili promptly quelled the disturbances which prevailed throughout the empire at Ibrahim's death, and carried on the war with Venice which had been begun by Ibrahim. The Turkish fleet was defeated by the Venetians in the archipelago in 1651, and, five years later, another Turkish fleet was completely destroyed by them. In 1657 the Turks retook Lemnos and Tenedos. In 1660 war was declared with Austria; the Turkish army, after a successful campaign in Hungary, was at length badly defeated in 1664 by the combined forces of France, Italy, and Germany. In 1661 Ahmed Kuprili succeeded his father as vizier, and continued the war with Venice. He laid siege to the city of Candia in 1667, and forced it to surrender in 1669. A treaty of peace was negotiated between the two states at once. In 1672 Mohammed IV. put himself at the head of the army and invaded Poland, but was badly defeated the next year by John Sobieski, and in 1676 Poland was granted a treaty of peace. In 1682 Turkey declared war against Austria upon the occasion of a revolt in Hungary, and in 1683 Kara Mustapha, with an army of 300,000 men, laid siege to Vienna. The imperial army had fled from the city, which was on the point of capitulating, when it was relieved by an army under Charles of Lorraine and John Sobieski, who defeated the Turks, whose position grew every day more precarious. Another alliance was formed against them between Venice, Germany, Russia, and Poland. In 1687 Charles of Lorraine defeated the Turkish army, which suffered heavy losses, at Mohacs, and soon after Transylvania and other Danubian provinces fell away from Turkey. Late in 1687 a mutiny broke out in the Turkish army before Belgrade; the troops marched upon Constantinople, deprived Mohammed IV. of his throne, and made his brother sultan as Solymán III. Mohammed IV. was imprisoned during the rest of his life.

MOHA'VE, a co. in n.w. Arizona, having the navigable Rio Colorado for its w. boundary, separating it from California, and the Bill Williams river and Santa Maria creek for its s. boundary; about 6,500 sq. m.; pop. '76, 822. Its surface is mountainous, largely covered with timber, and with broad valleys varying from 2 to 10 m. in width. Its soil is for the most part unproductive, but the river banks are susceptible of cultivation, bearing now a wild growth of cottonwood, mezquite, and the nutritious grass that furnishes good pasturage. It contains the celebrated cañon of the Colorado, a stupendous chasm with rocky walls from 3,000 to 6,000 ft. high extending for 300 miles. Gold, copper, and lead are found; and it has rich silver mines and quartz mills. Its trade is principally in miners' supplies. Capital, Mineral Park.

MOHA'VE DESERT, a valley in s. California lying principally in s. Bernardino county. It is a desert only in name, as large parts of it afford good pasturage, and water is easily procurable in wells, though the streams in the valley are small, and do not flow into the ocean. In some portions the summer heat is intense, and vegetation is scanty. Much of the district is said to be below the level of the sea. Mohave river, in s. Bernardino co., California, flows e.n.e., and is lost in the Mohave desert.

MOHA'VES, the name of a tribe of Indians who occupy lands along the Colorado and Mohave rivers, in Arizona. They belong to a nation of the Pima family—the Yumas—and are naturally a brave and warlike race, though not quarrelsome. They favor agriculture as a pursuit more than most of the tribes, and some of them are semi-civilized in their manner of living, occupying decently constructed dwellings. About 1000 of them dwell on a reservation appointed by the U. S. government, comprising about 130,000 acres. The remainder, twice or three times as many, are scattered. They are rapidly diminishing in numbers through the influence of disease. No attempt is being made to educate them, nor are there any missions among them.

MOHAWKS. See AGMEGUE.

MOHL, HUGO, VON. 1805-72, b. Stuttgart; studied medicine and natural sciences at Tübingen, and was professor of botany and director of the botanic garden in Tübingen in 1835. His works were numerous, and he is of high authority on vegetable physiology.

MOHL, JULIUS VON, b. at Stuttgart, 1800; studied Persian and Chinese at Tübingen, Paris, London, and Oxford; was professor of oriental literature in Tübingen, 1826-32; went to Paris and became professor of Persian at the college de France in 1845, and in 1852 director of the oriental department of the national printing-office. His principal work is his edition of Firdusi's *Shah Nameh*, and many Chinese and other oriental works. He published also *Dante et les origines de la littérature italienne*.

MOIGNO (DE VILLEBEAU), FRANÇOIS NAPOLEON MARIE, 1804; b. in Morbihan, France; educated in Jesuit schools and colleges; was made abbé in 1830. In 1836 his advancement in mathematical studies gave him a professorship in Paris. He afterwards contributed articles on religious subjects to the *Univers* and other church journals, and in 1840 published *Leçons de Calcul Différentiel et Intégral*. In 1845 he became the scientific editor of *L'Époque*; in 1849 and 1850 traveled and contributed to the *Presse* and *Pays*, and in 1852 became editor-in-chief of the *Cosmos*, a scientific weekly in Paris. His reputation as a man of great learning both as a linguist and scientist is based on a large number of published works. Among them is one designed to harmonize state with religious instruction, entitled *Principes Fondamentaux d'après lesquels Doivent se Résoudre les deux Grandes Questions des Rapports de l'Église et de l'État et de l'Organization de l'Enseignement*, etc., published in 1846 in Paris.

MOIR, DAVID MACBETH, 1798-1851; b. at Musselburgh, Scotland; was educated at the grammar school, and at the age of 13 was apprenticed for four years to Dr. Stewart, a medical practitioner. At the close of his apprenticeship he finished his course at Edinburgh, and received his diploma as surgeon in 1816. Towards the close of his college course he sent forth an anonymous publication entitled *The Bombardment of Algiers and other Poems*. In 1812 he appeared in print with two short essays in prose in a local magazine. Returning home he devoted himself to literature. In 1817 he joined Dr. Brown as a partner in an extensive medical practice in Musselburgh. His evenings and nights he spent in literary study. Having previously contributed in prose and verse to the *Scot's Magazine* and to Constable's *Edinburgh Magazine*, he became a constant contributor in prose and verse to *Blackwood's Magazine*, which was started about that time. His verse was both comic and serious. Among his clever comic effusions were *The Eve of St. Jerry* and *The Ancient Waggoner*. His serious poems had the signature Δ, from which he obtained the literary cognomen of Delta. His connection with *Blackwood* continued till his death. In 1823 he formed a strong friendship for John Galt, the novelist, who, being suddenly called off to America before finishing his novel *The Last of the Lairds*, commissioned Moir to write the concluding chapters for him. In 1824 he published the *The Legend of Genevieve and other Tales and Poems*, comprising selections from his magazine articles, with some original additions. In 1824 he began in *Blackwood* his novel of *The Autobiography of Mansie Wauch*, which was continued for nearly three years, and published in a volume. Though urged to remove to the metropolis, where he would have a more lucrative practice and a larger circle of literary friends, he preferred the scenes of his early days and his practice among the poor. His practice was so extensive that for ten successive years he never slept a night out of Musselburgh. In 1829 he published *Outlines of the Ancient History of Medicine, being a View of the Healing Art among the Egyptians, Greeks, Romans, and Arabians*. In 1832 he greatly exerted himself to check the cholera, and published, as secretary of the board of health, *Practical Observations on Malignant Cholera*, and *Proofs of the Contagion of Malignant Cholera*. In 1843 he published *Domestic Verses*, in which he records with tenderness the loss of his two sons. In 1846 he was thrown from a carriage and rendered lame for life. In 1851 he delivered a course of six lectures on the poetical literature of the past half century at the Edinburgh philosophical institution, which were afterwards published. In the same year he published *Selin*, his last contribution to *Blackwood's Magazine*. His contributions to *Blackwood* alone number 370. The poems of Moir are graceful and pathetic. A selection of his poetical works in two volumes was published by Thomas Aird with a memoir of the author.

MOIRA, EARL OF. See HASTINGS, FRANCIS RAWDON.

MOKAN'NA, or ATHA-BEN-HAKEM. See MOHAMMEDAN SECTS, *ante*.

MOLASSE'. See MOLLASSE, *ante*.

MOLAY, JACQUES DE, 1244-1314; b. Burgundy; of the families of Longvic and Raon. Nothing is known of his early life but that he was admitted to the order of knights templars at Baune, in the diocese of Autun, and was promoted to be grand-master about 1298. This was in the reign of Philip IV., who was endeavoring to replace the feudal system in France by a powerful monarchy, and who viewed with fear and distrust the growing influence of the knights templars. The success which had characterized the crusades, and which had been largely the work of this and the other Christian orders, had now deserted them. Syria had again fallen a prey to the Mohammedans, and the knights templars and hospitalers had retired to Cyprus, whence they sent forth a cry for help to the Catholic hierarchy and the Christian powers throughout Europe. But Europe was itself torn by the dissensions of petty potentates. De Molay, however, determined to effect by strategy what he could not control by force; and, taking advantage of the movement of the Mogul Tartars against Syria and Egypt, ingra-

tiated himself with the grand khan, and actually received command of one wing of his army, with which he invaded Syria in the spring of 1259. With the troops under his control he recovered Jerusalem from the infidels, and so awakened enthusiasm that a new crusade was urged upon the pope and the kings of France and England. But the unexpected success which had been achieved by Tartar aid was short-lived. In the following year the army of the grand khan was destroyed and Jerusalem again lost to the Christians. The templars returned to the island of Tortosa near Tripoli, with Jacques de Molay still at their head. They were attacked and defeated in 1302, and obliged to flee to Cyprus. It was now that Philip IV. undertook to carry out the project which he had formed to destroy the order whose supremacy he feared. The order was at this time powerful, well-organized—comprising most of the great nobles of Europe—and wealthy to a degree to excite the cupidity of so greedy a monarch as Philip. In the grasp of a mind so broad and a temperament so energetic as those of De Molay, its possible future might well occasion dread to the ambitious and envious. With a design to impose upon the credulity of De Molay, Philip pretended to be anxious for a new crusade, and at his instigation Clement V. called the grand-masters of the templars and hospitalers to Europe. The call was answered by De Molay, among the rest, who appeared in Paris in Aug., 1306, accompanied by a chosen band of distinguished knights of the order, and loaded with treasure. He made a triumphal entry into the capital, a fact which did not tend to allay the suspicions or alter the determination of the king, though he received his visitors with due hospitality. Repairing to Poitiers to render his allegiance to the pope, De Molay took the opportunity to ask an investigation of sinister rumors which had been spread abroad by the enemies of the order. The pope, under the influence of Philip, directed that such an investigation should be undertaken; when the latter, assuming the order to be permission for active proceedings against the order, procured the arrest of every templar in France, and Oct. 13, 1307, Jacques de Molay was seized in the house of the temple and summoned before the inquisition. Although the pope was indignant at this liberty on the part of Philip, and took action to suspend the power of the inquisition in the premises, the king persisted in his determination, and in May, 1310, caused 54 of the templars to be burned at the stake. De Molay was now put under examination by a papal commission, and was condemned to death. He was dragged to the stake, loaded with fetters, "a feeble old man, bent and whitened by age and captivity," and died protesting to the end the innocence of the order—of which he was the last grand-master.

MOLECULE, MOLECULAR VOLUMES. See ATOM; ATOMIC THEORY; CHEMISTRY, *ante*.

MOLENBEEK, ST. JEAN, a t. in Belgium, in the suburbs of Brussels; pop. 37,292. It has a museum of natural science.

MOLESCHOTT, JACOB, b. Holland, 1822; took a medical degree at Heidelberg, and began the practice of medicine at Utrecht, whence he removed, in 1847, to Heidelberg, where for seven years he lectured on physiology at the university. A real or supposed tendency towards materialism, in his lectures, alarmed the authorities, and he resigned. Soon after he was appointed professor at Zurich, and in 1861 he was called to the chair of physiology at Turin. His physiological researches, particularly in regard to diet, muscular formation, the blood and bile, are of value. Without asserting the impossibility of a spiritual life, he explains the origin and the condition of animals by the working of physical causes. His characteristic formula is, "No thought without phosphorus." His most important works are: *Lehre der Nahrungsmittel*, 1850, which has been translated into English by Dr. Bonner as *The Chemistry of Food and Diet*; *Physiologie der Nahrungsmittel*, 1850; *Ursache und Wirkung in der Lehre vom Leben*, 1867; and *Von der Selbstbestimmung im Leben der Menschheit*, 1871.

MOLESWORTH, GUILFORD LINDSAY, b. England, 1828; educated at the college of civil engineers at Putney. In 1852 he became chief assistant engineer of the London, Brighton, and South Coast railroad, but soon resigned to conduct the constructions at Woolwich arsenal during the Crimean war. After practicing his profession in London for a number of years, he went to Ceylon, and in 1862 became chief engineer of the government railroad in that island. In 1867 he was appointed director of public works; and in 1871 consulting engineer to the Indian government. He has published a *Pocket-book of Engineering Formulae*.

MOLESWORTH, WILLIAM NASSAU, b. England, 1816; was educated at Cambridge and entered the English church. He was presented to St. Andrews, Manchester, in 1841, and to St. Clement Spotland, Rochdale. He has been an advocate of co-operation, and has taken part in the well-known experiment of co-operation at Rochdale. His most important writings are *A History of the Reform Bill of 1832* and *History of England from the Year 1830*, 3 vols., 1871-73.

MOLINA, FRAY ALONSO DE, 1496-1584; b. Spain; entered the order of St. Francis. He went to Mexico to convert the natives soon after the Spanish conquest, and familiarized himself with the Aztec language. He made translations into Aztec of the catechism and of a confessional manual. He also wrote a grammar of that language, but his great work is his *Aztec-Spanish Dictionary*, completed in 1571.

MOLINE', a t. in Rock Island co., Ill., on the e. bank of the Mississippi and on the line of the Western Union, Chicago, Rock Island and Pacific, and the Rockford, Rock Island and St. Louis railroads; pop. of township about 6,000. Fine water-power is obtained by a dam reaching from the shore to an island in the river, and from 20 to 25 factories are constantly in operation manufacturing steam-engines, pumps, plows, paper, and many other articles. The place has 3 banks, a weekly paper, a public library, many churches, and a very fine public school.

MOLINELLA, a t. in the province of Bologna, in n. Italy, between the Reno and Po rivers. Pop. 10,751. The chief industry is the manufacture of cheese and hemp. The town was anciently situated on separate islands formed by changes in the course of the Po; these islands have been joined and built over.

MOLINO DEL REY. An outpost of Chapultepec, about $2\frac{1}{2}$ m. from the city of Mexico, where occurred a battle Sept. 8, 1847, between the American troops under gen. Winfield Scott and the Mexicans commanded by gen. Santa Anna. Scott's force numbered about 10,000 men; the Mexicans about 7,000 picked men, with a reserve of 12,000. Scott had captured Contreras and Churubusco, and sat down under the walls of Chapultepec from Aug. 20 to Sept. 7, while an armistice existed to enable Nicholas P. Trist, peace commissioner, to conclude an amicable arrangement if possible. At the close of the armistice, the peace negotiations having proved ineffectual, Scott attacked Molino del Rey, which comprised a number of massive stone buildings, about 500 yards in extent, commanded by the defenses of the great fortified castle of Chapultepec, where were 14,000 Mexicans. This position had been originally a flour-mill (*molino*), and was afterwards a foundry for the manufacture of arms, and now a fortress defended by Mexican veterans. It was attacked by Scott on the morning of Sept. 8, and, though the battle was a hard-fought one on both sides, it was carried by storm on the same day, thus opening the way to the capture of Chapultepec and the city of Mexico.

MOLLER, GEORG, 1784-1852; b. Hanover; studied architecture in Carlsruhe and Italy. After his return from Italy he was appointed government architect to the grand duchy of Darmstadt. He designed the ducal palace at Wiesbaden, and a number of the public buildings as well as private residences at Darmstadt. He discovered the original design of the Cologne cathedral, the two towers of which have been finished in accordance with his published fac-simile of that design. His most important publications are: *Monuments of German Art* and *Monuments of German Architecture*.

MOLLITIES OSSIUM, or **OSTEOMALACIA**, a destructive disease of the bones, characterized by softening and fragility. It has been carefully studied by Curling, Solly, Stanley, MacIntyre, and Litzmann, and also by Paget and Dalrymple. The bones become bent, their extremities swollen, and their shafts broken in various parts of the body. No callus follows the fracture as in healthy bone, and in consequence the body of the patient becomes much distorted. On examining the bones after death, they are found light, soft, and gritty to the feel; exceedingly brittle, and of a reddish brown color. Cavities of various sizes, and of a round or oval shape, are also found, usually filled with an oily, reddish, grumous fluid, but sometimes with clear serum. The red, grumous matter exhibits a cell development, and Solly regards it as a subsequent morbid product, and not simply altered fatty matter colored with blood. Dalrymple found caudate corpuscles in it, and regards it as malignant, in which opinion others agree. Virchow, however, considers that the peculiar cellular condition results from retrograde conversion of osseous into medullary substance. Paget regards mollities ossium as including two diseases—one more common in England, attended with fatty degeneration, and another called *osteoporosis* by the Germans, in which there is simply removal of earthy matter, and more common in Germany and France. He also believes the English affection generally attacks the bones of the extremities, while that form more often seen on the continent attacks the bones of the trunk. The cause of mollities ossium is rather obscure, but is frequently connected with rheumatic symptoms. In some cases a connection has been traced to syphilis. The physiological conditions which accompany it are those of mal-nutrition generally, abnormal digestion, assimilation, and disassimilation. It is a disease of adults, rarely attacking persons under 20 years of age, and the aged are also not exempt. Its subjects are more often females than males, and, in a majority of cases, it is connected with the child-bearing state. Of 131 cases collected by Litzmann of Kiel, there were 85 females in whom the disease occurred during pregnancy, or was modified by it. Of the remaining cases 46 were females and 11 were males. According to the same authority, the seat of the disease varies as it occurs within the child-bearing period or not. In the 85 child-bearing women the whole skeleton was affected in 6 cases only, and all the bones except those of the head in two; whilst in the 46 other cases not connected with the child-bearing period, all parts of the skeleton were diseased in 21, and all the bones except those of the head in 6. The urine always contains large quantities of earthy matter, chiefly phosphate of lime, which has been absorbed from the bony tissue and eliminated by the kidneys. The pelvis, or chamber of the kidney, is sometimes filled with phosphatic accretions, forming a solid calculus. At the commencement of the disease the diagnosis is very difficult, as the symptoms simulate those of rheumatism. It is important, however, to make the distinction as soon as possible, which may be done as soon as the phosphatic condition

of the urine is manifested. It is readily distinguished from rickets, as the latter is peculiarly a disease of childhood, and has no tendency to spontaneous fracture of the bones. The treatment offers little encouragement, although judiciously selected tonics will sometimes afford temporary relief, and arrest for a short time the progress of the disease; but its tendency is progressive. In the latter stages opiates are indicated to relieve pain and produce sleep, and, with wine or other stimulants, are the only medicines required.

MOLLUSCOIDA, a division of the sub-kingdom Mollusca (q. v.), also in the article **INVERTEBRATE ANIMALS**.

MOLLY MAGUIRES, a secret order which existed in 1854-77, and probably still exists, in the anthracite coal mining region of north-eastern Pennsylvania. Here 400 collieries employed 60,000 men; Americans, Germans, Welshmen, Englishmen, and Swedes comprising one-half the number, the remainder being Irish. Among the latter half originated, in the locality named, the order of Molly Maguires, a branch of the "ribbonmen" of Ireland. The order, however, had a much wider existence, and is alleged to have been affiliated with the "ancient order of Hibernians," elsewhere a peaceable and reputable organization. Until 1865 and '66 the order of Molly Maguires had not become generally known for the murders and other brutalities which then distinguished it. In 1875, having gained control of a combination which forced a general strike in the coal-regions, it succeeded in obtaining an ascendancy in the councils of the miners, and from that period was prominent in assassinations and other outrages, committed usually on the persons and against the property of justices of the peace, police officers, and mining bosses. The number of murders increased between 1869 and '71, and fell off after the latter year, and until that of the great strike of 1875. According to some of those who made an investigation into the antecedents of the Molly Maguires, they originated in the trade-unions, and not in the A. O. H. or among the ribbonmen. None but Catholic Irishmen or their descendants were admitted to membership: the order was organized in divisions, each having a chief official known as a "body-master; " and there were signs and passwords to enable members to distinguish each other. These signs and passwords were given to the members by the body-masters, who received them from the county delegate, who got them from the state delegate, to whom they were furnished by the national delegate or national board in New York city: to the latter they came quarterly from Ireland, by the hands of the steward of one of the transatlantic steamships. A central and governing organization known as "The Board of Erin" was said to be the origination of the order, and this held quarterly meetings in England, Scotland, or Ireland. So extended were the ramifications of this order in Pennsylvania, that it was made known during the trials of the Molly Maguires in 1877 that one of their body-masters in the Pottsville district held the high office of county commissioner. The final exposure, capture, and punishment of the Molly Maguires was largely due to the energy and determination of Franklin B. Gowen, president of the Philadelphia and Reading railroad co. and coal co.; through the immediate instrumentality of James McParlan, a detective, who joined the Molly Maguires, became acquainted with their members and the secrets of their organization, and was at length enabled to afford information which disclosed the names of criminals connected with a majority of the murders committed by the order. A large number were apprehended, tried, and condemned, and their execution—that of a number of them occurring on the same day—so alarmed the members of the order that it ceased to possess any extended influence.

MOLOSSIA, or **MOLOSSES**, a division of ancient Epirus, comprising the n.e. district. Its chief town was Ambracia. The country was famous, in ancient times, for its breed of shepherd dogs.

MOLOSSUS, a genus of bats (cheiroptera). The head and ears are large; hind limbs robust, giving the animal more power of running than most others of the order; tail long, enveloped at its base, but most frequently free at the extremity. It has a wide geographical distribution, in Africa, Asia, and South America, principally the two latter, in warm regions. Dental formula:

$$i \frac{1-1}{1-1}; c \frac{1-1}{1-1}; m \frac{5-5}{5-5} = 28$$

MOLY, a fabulous plant, said to be a panacea for all diseases, given by Hermes to Odysseus as a protection against the magical charms of Circe. It was supposed to be a variety of garlic. There is a kind of garlic still called "sorcerer's garlic," probably a reminiscence of the Circe legend.

MOLYNEUX, WILLIAM, LL.D., 1656-98; b. Ireland; educated at Trinity college, Dublin, and afterwards a member of the middle temple, London. He had been instructed in mathematics by his father, Samuel Molyneux, who had written a work on gunnery, and he soon turned his attention from law to mathematics and optics. He was one of the founders and the first secretary of the Dublin philosophical society. Two years later he was made a member of the London royal society, and was sent by the English government to examine the fortifications in the Netherlands. In 1688 he was forced to leave Ireland on account of the political troubles there, but he came back after the battle of the

Boyne. In 1692 he represented the Dublin university in the Irish parliament. His main work, the first in English upon the subject, is a treatise on optics, called *Dioptrica*. This book was revised by Halley, who included in the appendix his theorem for finding the foci of optic glasses. He also published a *Translation of the Six Metaphysical Dissertations of Descartes*, and numerous papers in the proceedings of the royal society. One of his non-scientific works contains some interesting reminiscences of the war in Ireland—his *Journal of the Three Months' Campaign of his Majesty in Ireland*, 1690.

MÔMIERS, French for maskers or comedians, is the name given in derision to a sect of evangelical Protestants of Switzerland and adjacent parts of Germany and France, who exhibited an uncommon degree of fervor in their religious services. They charged the national church with apostacy from the reformed faith especially by denying the divinity of Christ. This subjected them to opposition and restraint, so that ultimately, despairing of making progress, they went back to the church. The most distinguished man among them was the rev. Cæsar H. A. Malan, D.D., who having been brought up among Socinians continued to hold Socinian doctrines after his ordination as a minister in 1810, until in 1817, by means of friendly intercourse and discussion with Robert Hall-dane of Scotland and Dr. John M. Mason of New York, at that time sojourning at Geneva, he embraced evangelical doctrine, and was, 1820–1863, pastor of an independent congregation of Mômiers.

MOMOT or MORMOT, the common name for the different species of birds belonging to the genus *prionites* of Illiger. Some have placed the momot as a genus, and it has also been proposed as a family. Its place is, however, rather uncertain. It has been assigned to the coraciadæ. The genus *prionites* has the following characteristics. Both mandibles slightly curved and compressed; the margins with strong denticulations; tongue long and slender, with the sides ciliated; wings short and rounded; tail long and pointed. Dr. G. R. Gray makes the momotinæ, a sub-family of the *todidæ*, consist of the genus *crypticus* (prionites of Swainson), and the genus *momotus* (prionites of Illiger, momota of Shaw, and rhamphastos of Linnæus).

MOMOTOM'BO, a volcano of the Marabios range, near lake Managua, 25 m. n.e. of Leon in Nicaragua. Its height is 7,200 ft., of which more than one-third is composed of the ashes and cinders ejected in past ages. It is still active, but has had no serious eruptions for many years. Among other traditions connected with it is one, embodied in Victor Hugo's *La Légende des Siècles*, which tells of an attempt by Spanish priests to ascend and plant the cross on its summit; they were never heard of afterwards; and the ascent remains to this day unaccomplished.

MOMUS, in fabulous history, the god of raillery, or the jester, who ridiculed both gods and men. He is the personification of mocking censure. Being requested by Vulcan, Neptune, and Minerva, to give his opinion as to their works, he blamed them all: Neptune, for not making his bull with horns before his eyes, in order to give a surer blow; Minerva, for building a house which could not be moved in case of bad neighbors; Vulcan, for making a man without a window in his breast, that his secret thoughts might be seen. Venus alone was blameless. For his free censures of the gods he was expelled from heaven. He is generally represented as raising a mask from his face, and holding a small figure in his hand. He is according to Hesiod the progeny of Night.

MONA'GAS, JOSÉ TADEO, 1786–1868; b. Venezuela; served under Bolivar in the war of independence, 1810–20. After a number of unsuccessful attempts to overthrow the government, he was chosen to the presidency in 1846. He sent ex-president Paez, against whom he had formerly headed a revolution, into exile, and abrogated the constitution, making himself dictator. He succeeded in maintaining himself in this office till 1859. He declared against and overthrew the government of gen. Falcon in 1868, and was again elected to the presidency, but died before taking his seat.

MONARCHIANS, "believers in one fountain or source of being," were persons in the early Christian church who did not admit a distinction of persons in the divine Being. Believing strictly in the unity of God, they rejected the orthodox doctrine of the trinity. Traces of their opinions appeared at a very early period of the Christian era, and are alluded to by Justin Martyr as held both by Jews and Christians. He condemns the former for saying that when God communed with the patriarchs it was God the Father who appeared. He makes the same complaint against certain Christians. From this it is manifest that in Justin's day there were nominal Christians, who spoke of the Son as only an unsubstantial energy of the Father. This leading opinion of the monarchians is thought to have been brought into Christianity chiefly through Alexandrian Jews and Gnostics, or, in some instances, to have been derived directly from pagan philosophy. From pagan religion it could not have come, unless very indirectly, as that took little thought of the unity of God. But whatever its origin, it was embraced by two classes, who differed greatly in their application of the theory: the one, who may be called rationalistic, admitted the divinity of Christ only as being at most a mere power; the other, some of whom were *Patripassians*, identified the Son with the Father, and allowed at most only a trinity of manifestation. "The one," says Schaff, "prejudiced the dignity of the Son, the other the dignity of the Father; yet the latter was by far the more profound and Christian, and accordingly met with the greater acceptance."

1. Those of the first class saw in Christ a mere man filled with divine power; but conceived this divine power as present in him not merely from his baptism, but from the beginning, and admitted his supernatural conception through the Holy Ghost. 2. The second class, whom Tertullian called *Patripassians*, while they professed Unitarian opinions, strove also to hold fast the divinity of Christ; and, as they thought, accomplished their object by merging his independent personality in the essence of the Father. Sabellius, about the middle of the 3d c., denying both trinity of essence and permanent trinity of manifestation, taught that the unity of God, without distinction in itself, after the creation, unfolds itself in the course of the world's development in three different forms and periods of revelation, and after the completion of redemption, returns into unity. The Father (he said) reveals God in the giving of the law and the Old Testament economy; the Son reveals God in the incarnation; and the Holy Ghost reveals God in inspiration. He illustrated this trinity of relations by comparing the Father to the sun, the Son to its enlightening power, and the Spirit to its warming influence. Athanasius pointed out coincidences of thought in the stoic philosophy with the doctrine of Sabellius, which, however, is generally admitted to have been thought out independently in his own mind: He may be regarded as the most original, ingenious, and profound of the monarchians. His system has been revived by Schleiermacher in a very modified form; and is substantially held in still later times by some who, holding to Christ's supreme divinity, deny the union in him of the human and divine natures, and suppose that he was God dwelling in human flesh and subject to its limitations and infirmities. It will be seen that the general principle of monarchianism admits various modifications in theory, and may be pressed in one extreme into a denial of any proper divinity in Christ, and in the opposite extreme to a position scarcely distinguishable from the stand and doctrine which has been upheld in the church. See INCARNATION, TRINITY.

MONBUTTOO, a country in central Africa, between 3° and 4° n. lat., and 28° and 29° e. long.; 4,000 sq.m.; estimated pop. '70, 1,000,000. It is an elevated table-land, 2,500 ft. above the sea. The Keebaly and Gadda rivers flow through it, uniting to form the Welle, which, after a westerly course through s. Nyam-Nyam, joins the Shary, the source of lake Tchad. The soil spontaneously produces so many fruits and edible roots that cultivation is small, restricted for the most part to tobacco, sugar cane, and sesame. There are few domestic animals. The inhabitants are lighter colored than the surrounding nations; they are cannibals, fond of the chase, and skillful in the working of copper, iron, and wood. Polygamy and circumcision are practiced. The art of weaving is unknown. There is a considerable trade in ivory.

MONCK, a co. in s. Ontario, on lake Erie; 373 sq.m.; pop. 16,189. The Canada Southern, the Grand Trunk, and the Great Western railroads pass through it.

MONCK, CHARLES STANLEY, Viscount, b. Ireland, 1819; educated at Trinity college, Dublin, and called to the Irish bar in 1841. He was elected to parliament as a liberal member for Portsmouth in 1852, and re-elected in 1855, but was unsuccessful in 1857. He was a lord of the treasury from 1855 to 1858, and was appointed governor-general of Canada in 1861. He was reappointed in 1867, but resigned the next year. In 1871 he served on the Irish national education commission, and on the commission to carry out the act for the disestablishment of the Irish church. He succeeded his father as viscount in the Irish peerage in 1849, and was made a viscount in the peerage of Great Britain in 1866.

MONCREIFF-WELLWOOD, Sir HENRY, 1750-1827; b. Scotland; son of the rev. sir William Moncreiff, and assumed the additional name of Wellwood late in life. Having been educated at Glasgow and Edinburgh, he was ordained, 1771, as successor to his father at Blackford, and continued there until 1775, when he became minister of St. Cuthbert's, Edinburgh. Always a member of the evangelical party in the church, he became at length its leader. His published works are: *Discourses on the Evidence of the Jewish and Christian Revelations*; *The Life and Writings of Dr. John Erskine*; and *Sermons*, 3 vols.

MONCTON, a t. in Canada, province of New Brunswick, co. of Westmoreland, the terminus of the Moncton to St. John's division of the Intercolonial railway; pop. 4,810. It is a port of entry, with a convenient harbor, very pleasantly located at the head of navigation of the Petitcodiac river, which empties into Chignecto bay, the n. extremity of the bay of Fundy. It has several hotels, 4 churches, a variety of stores, and a telegraph office. It contains the offices of the Intercolonial railway and repair shops. It has 2 banks, and its leading industries are the manufacture of steam-engines, machinery, cigars, leather, hardware, and castings. It has a great trade in lumber.

MONDAY (Ger. *Montag*, Lat. *Lunæ Dies*, the day of the moon, Fr. *Lundi*), the second day of the week. The name descends from the Romans, who named the days of the week after the planets.

MONDOÑEDO, a t. in Galicia, Spain, n.n.e. of Lugo; pop. 2,452. It has a cathedral and a castle. There are tanneries, and manufactures of cotton cloth, and linen.

MONETARY COMMISSION OF THE U. S. CONGRESS. The mistaken demonetization of silver by congress in the coinage act of Feb. 12, 1873, passing almost unnoticed during that year, soon afterwards attracted the attention of thoughtful men. Its possible

consequences loomed portentously into view, as the subject was more and more studied. Within three years it became a theme of general discussion in the United States. It was a prolific source of debate in the 44th congress; and on Aug. 15, 1876, the senate initiated a joint resolution for the appointment of a joint commission of three senators, three members of the house, with experts, not exceeding three, to be selected by the former, whose duty was to inquire, "First, Into the change which has taken place in the relative value of gold and silver; the causes thereof, whether permanent or otherwise; the effects thereof upon trade, commerce, finance, and the productive interests of the country, and upon the standard of value in this and foreign countries; Second, Into the policy of the restoration of the double standard in this country; and, if restored, what the legal relation of the two coins, silver and gold, should be; Third, Into the policy of continuing legal-tender notes concurrently with the metallic standards, and the effect thereof upon the labor, industries, and wealth of the country; Fourth, Into the best means for providing for facilitating the resumption of specie payments."

The commission as organized consisted of Messrs. John P. Jones, Lewis V. Boggy, and George S. Boutwell, of the senate; Randall L. Gibson, George Willard, and Richard P. Bland, of the house of representatives; Wm. S. Groesbeck of Ohio, and Prof. Francis Bowen of Massachusetts. Geo. M. Weston of Maine was appointed secretary. The sessions of the committee were held in New York until December of that year, and afterwards in Washington. Circulars were immediately issued by the commission to men of eminence in monetary studies, to authors, bankers, and business men in the United States and Europe, to elicit the widest possible information on the topics of the resolution. The chambers of commerce in the cities were invited to furnish, and did furnish, lists of persons most competent to give information. The U. S. representatives in foreign countries were required to aid in the work. The commission entered upon its duties with energy, collected vast stores of information, and were aided by the most eminent political economists and financial writers of all schools, who were glad to have such an opportunity for the elucidation and comparison of their views. The main substance of the report was submitted and ordered to be printed Mar. 2, 1877. It is a masterly condensation of the philosophy and facts bearing on money questions; embracing clear statements of all schools of opinion. The conclusions of the commission were not unanimous. But the majority report not only exhibits such grasp of the whole subject, but has also been so far proved correct in its deductions by facts which have since become a part of monetary history, that the several dissents of individual members of the committee from certain parts of the majority report are not of much importance. On the whole, the report is the most valuable compendium of facts and monetary theories ever published. It takes rank in point of ability with the famous bullion report of England in 1810, but covers a far wider field, and introduces social science problems in connection with the money question not taken into consideration by the British committee. The latter sifted financial questions from bankers' points of view: the U. S. commission reviews the subject in the light of the public weal—the greatest good to the greatest number.

The conclusions of the majority of the committee on the first questions submitted are: That the recent production of silver relatively to gold has not been greater than formerly; that the (then) recent fall in the price of silver was not caused by any recent large production; but mainly by the concurrent demonetization of silver in Germany, the United States, and the Scandinavian states, the closure of the mints of Europe to its coinage, the temporary diminution of the Asiatic demand, the exaggeration of the actual and prospective yield of the Nevada silver mines, and a prevailing idea that the efforts of holders of government securities would bring about its demonetization: that gold is more fitful in production than silver; that the average production of both is more steady than of either one; "that to annihilate the money function of one must greatly increase the purchasing power of the other, and greatly reduce prices;" that "silver to the amount of \$3,000,000,000 in coin, the accumulation of 50 centuries, is so worked into the web and woof of the world's commerce that it cannot be discarded without entailing the most serious consequences, social, industrial, political, and commercial;" that "the evil is enormously aggravated by selecting gold as the metal to be retained and silver as the metal to be rejected;" that "the exchanges of the world, and especially of this country, are continually and largely increasing, while the supplies of both the precious metals, taken together, if not diminishing are at least stationary, and the supply of gold, taken by itself, is falling off; and that to submit the vast and increasing exchanges of this country and the world to be measured by a metal never to be depended on in its supply, and now actually diminishing in its production, would make crisis chronic, and business paralysis perpetual." Covering the second question the commission recommend the restoration of the double standard and the unrestricted coinage of both metals. The report on the third question for solution refers to the answer to the fourth, viz.: "the best means for providing for facilitating the resumption of specie payments." To this question the report answers, that "the remonetization of silver is a measure essential to specie payments, and may make such payments practicable." The commission believe "that the remonetization of silver in this country will have a powerful influence in preventing, and probably will prevent, the demonetization of silver in France and other European countries;" that remonetization by the United States, even without change in legislation elsewhere, will draw to us silver from other countries while it is cheap, in

exchange for what we have to export; and that this country will have the benefit of the rise which the committee believe will take place in its value when the temporary causes of its depression have passed. The report concludes with these words: "If the states of the Latin union, or other countries in Europe, abandon the double standard after we re-adopt it, or because we re-adopt it, it will be a policy on their part through which great advantages will inure to us, and great disasters will befall them. It would inaugurate in the United States an era of prosperity, based upon solid money, obtained on profitable terms, and under circumstances necessarily stimulating to our industry and commerce."

"Finally, the commission believe that the facts that Germany and the Scandinavian states have adopted the single gold standard, and that some other European nations may possibly adopt it, instead of being reasons for perseverance in the attempt to establish it in the United States, are precisely the facts which make such an attempt entirely impracticable and ruinous. If the nations on the continent of Europe had the double standard, a gold standard would be possible here, because, in that condition, they would freely exchange gold for silver. It was that condition which enabled England to resume specie payments in gold in 1821. The attainment of such a standard becomes difficult precisely in proportion to the number and importance of the countries engaged in striving after it; and it is precisely in the same proportion that the ruinous effects of striving after it are aggravated. To propose to this country a contest for a gold standard with the European nations is to propose to it a disastrous race, in reducing the price of labor and commodities, in aggravating the burdens of debt, and in the diminution and concentration of wealth, in which all the contestants will suffer immeasurably, and the victors even more than the vanquished."

Mr. Boutwell alone makes a minority report against remonetization of silver, except on a previously agreed basis, adopted in conjunction with European nations. Prof. Francis Bowen expresses his dissent from the conclusions of the majority of the committee at much length; and, while he argues for the gold basis alone, he finally reports in favor of the remonetization of silver, on adding to the quantity of pure silver in a dollar enough to make its bullion value equal to the then value of gold per dollar, and also recommends the reduction of the value of our gold coins, so that a five dollar piece shall be the equivalent of the English pound sterling. He also recommends that the paper money of the government should be gradually taken up by the treasury department and destroyed. In addition to the summary of the report, the first volume, as issued by the government, embraces papers prepared for the commission by Geo. M. Weston on "Asiatic trade and flow of silver to the East;" "Constitutional powers of Congress and the States with respect to metallic money;" "Legislation on subsidiary silver coins;" and "The trade dollar." The appendix to the same volume contains a report on silver production in the United States; the world's production of gold and silver; relative value of gold and silver; population and specie in the western world; demonetization of silver in Germany; payment of French indemnity of 1871; movement of specie to India; standard of the United States; coinage of the United States; money standard for Great Britain; monetary system of Austria-Hungary and China; also, papers furnished by all the foreign ministers of the United States. The second volume contains written and oral answers by men of eminence in monetary science, and by those of great experience in business, both in the United States and Europe, in reply to a series of questions agreed upon by the commission. Among the citizens of this country from whom written answers were drawn were Henry C. Carey, John A. Dix, Henry S. Fitch, August Belmont, John J. Bennett, Barclay & Livingston, Royal Phelps, W. L. Fawcett, O. D. Ashley, R. M. Waters & Co., Samuel Hoard, W. G. Sumner, Wm. E. DuBois, Albert Miller, J. K. C. Forrest, B. F. Nourse, F. P. Knight, Robert Patterson. Among foreigners who responded were G. B. Airy, Francis Jourdan, Hector M. Hay, Ernest Seyd, E. de Parieu, and Henri Cernuschi. The oral testimony was from a large number of distinguished Americans, and is very interesting.

MONETARY CONFERENCE, INTERNATIONAL: Paris, Aug., 1878. The profound interest awakened in the United States and Europe from 1867 to 1878 by the legislation of various countries to demonetize and remonetize silver, and to restrict and to expand the coinage; the discussions on the subject of a single metal, or of two metals, as the wiser and safer basis of value of the world's money,—induced the United States congress, in the act which remonetized silver, Feb. 28, 1878, to insert the following: "Sec. 2. That immediately after the passage of this act, the president shall invite the governments of the countries composing the Latin union, so-called, and of such other European nations as he may deem advisable, to join the United States in a conference to adopt a common ratio between gold and silver, for the purpose of establishing, internationally, the use of bi-metallic money, and securing fixity of relative value between those metals; such conference to be held at such place in Europe or the United States, at such time within six months, as may be mutually agreed upon by the executives of the governments joining in the same, whenever the governments so invited, or any three of them, shall signify their willingness to unite in the same." The section further provides that the president shall appoint three commissioners to the conference. Ex-Governor Reuben E. Fenton of N. Y., Wm. S. Groesbeck of Ohio, and prof. Francis A. Walker of New Haven, were appointed. Subsequently the president was authorized to add to the list of dele-

gates Mr. S. Dana Horton, of Ohio, an accomplished monetary student and author. Paris was chosen as the place of conference. Austria-Hungary, Belgium, France, Great Britain, Greece, Italy, the Netherlands, Russia, Sweden-Norway, and Switzerland sent their ablest representatives. The German government alone declined to participate in the conference, though a second time invited.

The conference opened its session Aug. 10, 1878, at the office of the ministry of foreign affairs. Leon Say, minister of finance in France under the presidencies of Thiers and McMahon, son and grandson of the most eminent of French writers on political economy, was made president of the conference, and Mr. Fenton vice-president. In his opening address to the conference Mr. Say stated the reasons which had induced the five states composing the Latin union "while preserving to silver its legal tender quality, to restrict its coinage within narrow limits, and, within the past year, to suspend it entirely." These reasons were the adoption by Germany of the single standard of gold, and the great production of the American silver mines. While Germany continued to gather and sell her silver he thought it would be difficult to determine the value at which silver might be rated when that disturbing element in its present value was out of the way. The Latin union, therefore, while glad to join in the American efforts to fix a ratio of value between silver and gold, "as a measure of prudence has remained in an expectant attitude." Mr. Fenton then presented the object of the call for the conference in the language of the act of congress. Count Rusconi of the Italian delegation suggested as more logical to first decide whether such a fixed ratio was possible. Mr. Say observed that as questions of fact should precede those of theory he would favor an avoidance of theoretical discussion at present, and first study facts and their relations. The first session closed with the understanding that the delegations should come to the next meeting prepared with full statistics of the monetary condition of their respective states. At the second session—Aug. 16—all the required documents were submitted. A brief summary of the position taken by the delegates at the subsequent sessions will best exhibit the animus of the conference. Mr. Broch, representative from Norway, observed that as Sweden and Norway had the gold standard they could participate in the conference only on the supposition that the United States desired to treat of more general questions; as of a coin for universal circulation. On that supposition only, and with the understanding that England was present on the same condition, his government had authorized participation in the conference. Mr. Groesbeck was called upon to state the position of the United States. It was, he said, simply "to restore silver to its former position; to equalize gold and silver upon a ratio to be fixed by agreement." The United States delegation could not commit their country to any agreement, but, like the delegates from Norway and Sweden, were interested to discuss the question of the establishment of coin for universal circulation. He corrected the supposition that the United States desired the full restoration of silver because it was the great silver producing country. He denied that in its legislation to preserve silver as money the United States had been influenced by the value of its present product of silver; the government having no direct interest, even by taxes, in the product; stating that the mines are owned indiscriminately by Americans and foreigners; and that London is so much the greater market for silver that the United States treasury had found itself compelled to buy as much silver in London as in America. He stated that within 25 years the yield of gold in the United States had been four times as great as that of silver, and that the falling off in production at the present time was more in silver than in gold. The remonetization of silver he showed to be on the part of the United States simply a return to a traditional policy with which the interests of the people are interwoven, and from which it was through careless legislation, rather than by design, that they had departed; and that therefore the United States could not be charged with a new motive of selfishness in its maintenance.]

Mr. Groesbeck submitted the following propositions to the conference: "1. It is the opinion of this assembly that it is not to be desired that silver should be excluded from free coinage in Europe and the United States of America. On the contrary, the assembly believe that it is desirable that the unrestricted coinage of silver and its use as money of unlimited legal tender should be retained where they exist, and, as far as practicable, restored where they have ceased to exist. 2. The use of both gold and silver as unlimited legal tender money may be safely adopted. First, by equalizing them at a relation to be fixed by international agreement; and secondly, by granting to each metal at the relation fixed, equal terms of coinage, making no discrimination between them." Mr. Pirmez of Belgium rejected the American propositions on behalf of his delegation. Count Rusconi of Italy desired first to discuss and vote on the principle. Is it possible to establish a fixed relation between silver and gold? He desired to vote affirmatively on that proposition first, and then proceed with the practical examination of a ratio. Mr. Broch of Norway, which has the gold standard, maintained that the history of silver showed a constantly decreasing value relatively to gold, and that during the enormous influx of gold from California and Australia after 1849 gold had dropped but 2 per cent below the French silver standard. Mr. Herzog of Switzerland opposed the American proposition; not that he desired silver demonetized, but that he thought it better for one nation to have the gold, and another the silver unit as now; and did not believe in the practicability of an international unit.

At the opening of the third session Mr. Goschen of England, and Mr. Mees of the Netherlands, questioned the American delegates concerning the certainty of resumption of specie payments the coming January. The statements in reply drew from Mr. Goschen the remark that there was no doubt of the ability of the United States to resume, and that his question had been put to enable him to form a judgment of the extent to which the United States might become buyers of silver in the world's markets. The U. S. treasury statement, he said, showed an exceedingly small holding of silver compared with gold. Mr. Groesbeck stated that, were an international agreement concluded on the American basis, the United States would absorb for the benefit of Europe not merely its own production, but a part of the German silver. Mr. Goschen called attention to the fact that "the United States invited the delegates to adopt a proposition which some of them were precluded by their instructions from entertaining," as they could not vote to compromise the existing standards of their countries; but "there was one part of the American propositions for which almost all the delegates could vote; and for which as a principle, personally, he would willingly subscribe, viz., that it is not desirable that silver cease to be one of the money metals. . . . Though England had a gold standard she had great interest in the maintenance of silver as currency. She had a more defined and less compromised position for the discussion of this question than other countries, for she had borne the depreciation of silver in India without trying to shut her doors upon it. She had done more than any other country to maintain silver. The Latin union had shut its doors upon silver. Holland half shut hers, while England had allowed it to take its natural course, and for five years had borne all the burdens resulting therefrom. Mr. von Henglemüller of Austria-Hungary could subscribe to the propositions of the United States, but since the advantage of this system depended upon the general adoption of it, his government was compelled to maintain an attitude of expectancy. As a member of the conference he would pronounce for the double standard. Mr. Mees of the Netherlands said that while England and Germany maintained the gold standard no other was possible for his country, but he could express his personal opinion that "it would be most beneficial to mankind that many states should adopt the double standard." He believed that in the Dutch colonies they would find it to their interest to maintain the silver standard. He agreed with Mr. Goschen that if the double standard were utopian, the single gold standard was also, and one that would be very dangerous if by some possible combination of circumstances it should be realized. He suggested that the United States unite with South America and Asiatic nations on silver, and then come to Europe with their proposition. Mr. Baralis of Italy thought that upon some points there was such a harmony of views that, if the precise propositions of the United States could not be adopted, at least some measure of utility closely allied to them might be. He did not sympathize with the advice to the delegates of the United States to seek allies in South America and China; and thought that the nations of Europe could now join in some practical affirmation in the direction of the propositions of the United States. Leon Say explained the monetary policy of France of late years as having the double standard in theory, but not in practice, the privilege of free coinage of silver at the mint having been withdrawn. When this suspension of free coinage first took place the question was warmly discussed in the French chambers whether it was a step towards the gold standard, or a provisional condition, which would permit France to avail itself of a favorable moment for returning to the double standard. The government declared emphatically that the movement was *not* towards the single gold standard. France is in "a condition of expectancy, from which we shall not move except for good reasons, when they show themselves, and then, probably, to re-enter into the system of the double standard." He stated that there were in the bank of France and in circulation in France 2,500,000,000 francs in silver; and that "to withdraw the legal tender power from such a mass of money, and to throw it on the market as merchandize is an inadmissible idea." He thought that until Germany had finished her sales of silver, France would remain in an attitude of expectancy. The proposition of the United States at the present moment seemed to him premature; and as its rejection by a majority would lead to a false conclusion as to the opinions of those at this time voting against its propositions as a whole, he suggested that they should not be passed upon, but that the states represented should agree simply upon the expression of a common idea as to the employment of silver as money, and should invite each other reciprocally not to take any measures in their domestic legislation which might depreciate silver. In his opinion, encouragement of the use of silver money will soon increase its value. He expressed assent to the first paragraph of the American proposition. He believed France might some day join the United States, assenting to the rest of their propositions; but not now. Mr. Feer Herzog of Switzerland announced himself energetically for the single gold standard; not for all nations, but "for the advanced nations, and leave silver to countries whose civilization is backwards or stationary." He announced that, with the Netherlands, Switzerland would maintain the "attitude of expectancy" with the hope of seeing the single gold standard eventually adopted by all. Count Rusconi of Italy was glad to see the general harmony of views on the necessity of continuing the monetary use of silver; and believed there was no difficulty in squarely admitting the fundamental propositions of the Americans. He believed further that when an international agreement as to legal ratio was arrived at, it alone would produce the equality desired; that

"nature makes the metal, but law alone makes the money." Mr. H. H. Gibbs, ex-governor of the bank of England, announced himself a partisan of the gold standard, but would not legislate to drive silver out of use. He expressed entire dissent from the notion of Mr. Herzog that the fall of silver was in the ratio of the progress of civilization, by which the most progressive will use the most precious metal, and the less civilized will be content with the other. He believed the recent fall of silver entirely the result of a simultaneous action of many temporary causes, and that the action of Germany was an important factor in the result. He illustrated the greater effect produced on the market by the German mass of coins put up for sale than by any ordinary increase or decrease of production: lessening the use of silver, and at the same time glutting the market with it. The third session of the conference closed the first expressions of opinion volunteered by delegates from European nations on the American propositions.

The fourth session of the conference was opened by prof. Francis Walker in a remarkably vigorous address in support of the American propositions, and in refutation of the objections made to them. He maintained that down to 1873 silver had been the principal money of the world, and the sole money of many prosperous nations; that it had ceased, to whatever extent, to be money, not as the result of natural causes, but by action distinctly political—the laws and decrees of governments; that it is no reversal of any law of nature that the American delegates propose, but the reversal of recent works of men's devising in opposition to the natural economic forces which gave silver its position as money. "As," said he, "the conference of 1867, wholly absorbed in the consideration of the means of securing international coinage, did exert a powerful influence in initiating the movement for demonetizing silver, it remains for the conference of 1878, with a more sober judgment, and a larger view of human interests, instructed as the nations have been by the bitter experience of the past few years, to put forth its hand to stay the progress of that demonetization which has already brought such mischiefs upon trade and the production of wealth." Mr. S. Dana Horton of the American delegation followed in further defense of the American propositions. He analyzed and refuted with masterly comprehensiveness the objections, both as to the principles involved, and the fitness of the present time for their application. He re-stated the essential point to which the American delegates desired to confine the discussion, viz., "Is it in the interest of the states represented at this conference to continue to wage a monetary war by seeking, to each other's prejudice, to get rid of the falling metal; or, is it their interest to unite together in order by a common legislation to give to the monetary basis of the business world a stability which it does not now possess?" These speeches of Messrs. Walker and Horton exhibited a masterly familiarity with principles, with law, and with monetary history in all its relations, and were at the same time so aggressively decisive in their maintenance of the American propositions that the majority of the conference, opposed to them from the beginning, showed a plain inclination to put an end to discussion by a decisive vote and an adjournment. But a more generous courtesy prevailed, and the discussion was continued at a sixth session, at which Mr. Groesbeck presented a remarkably clear and condensed summary of the situation which no abstract can fairly present. At its conclusion Mr. Pirmez of Belgium undertook to meet the American presentation of the subject. Fluent, ingenious, and somewhat satirical, he made a good speech; but it was like the firing of small arms against a massive fortification. Mr. Horton's response left no standing ground for the other side except what the astute president Say had announced at the opening session, viz., that theoretically we may be with you, but practically *not now*. Mr. Horton, in conclusion, reviewed the points gained by the development of national policies in the conference, especially by the new and broader position assumed by England, claiming that, "independently of any other result, this much has already been gained: that the conference of 1878, breaking with the traditions and doctrines of 1867, will have inaugurated a new era in the history of monetary science in our time, and that it will in a manner fix the date of the decline of the theories of mono-metalism." The response of the delegates of European states was then submitted. It is as follows:

"The delegates of the European states represented in the conference desire to express their sincere thanks to the government of the United States for having procured an international exchange of opinion upon a subject of so much importance as the monetary question. Having maturely considered the proposals of the representatives of the United States, they recognize:

"1. That it is necessary to maintain in the world the monetary functions of silver as well as those of gold, but the selection for use of one or the other of the two metals, or of both simultaneously, should be governed by the special position of each state or group of states.

"2. That the question of the restriction of the coinage of silver should equally be left to the discretion of each state or group of states, according to the particular circumstances in which they may find themselves placed; and the more so in that the disturbance produced during the recent years in the silver market has variously affected the monetary situation of the several countries.

"3. That the differences of opinion which have appeared, and the fact that even some of the states which have the double standard find it impossible to enter into a mutual engagement with regard to the free coinage of silver, exclude the discussion of the adoption of a common ratio between the two metals."

The animus of this very courteous, but not quite satisfactory response, is evident. France, at the head of the Latin union, holds the balance of power between gold and silver. Recognizing the equal money power of each metal, and conscious of the value of her own astuteness in the use of the power of the Latin union she does not care to abandon that advantage for any humanitarian or commercial advantage to any association of nations. Her "attitude of expectancy" has an eye on Germany and England, and as her monetary legislation has been based on a clearer insight into the philosophy of monetary science than that of other countries, as proved by its practical results, the preservation of the right of independent action, untrammelled by agreements for co-operation, gives her a vantage ground for national aggrandizement through the financial blunders of other nations.

Messrs. Rusconi and Baralis of Italy at the sixth session, entered a protest against the response of the majority of the European delegates as follows:

"1st. That by the adoption of the formula proposed, the conference does not respond to the question which was put to it, and that in systematically avoiding to pronounce itself upon the possibility or impossibility of a fixed relation, to be established by way of international treaty, between coins of gold and silver, it leaves its task unfinished.

"2d. That since the French law established such a relation (1785) between the two metals, the oscillations of their relative value had been without importance, whatever had been the production of the mines.

"3d. That consequently, *a fortiori*, if the law of France had been alone able to accomplish the result, then on the day when France, England, and the United States, by international legislation, should agree to establish together the relation of value of the two metals, this relation would be established upon a basis so solid as to become unshakable."

Mr. Goschen, on the part of England, desired it to be distinctly understood that the adhesion of himself and colleagues to the response was because it *did not* pronounce for a double standard; and that he desired with equal distinction "to combat the theory of the economists who demand the universal adoption of the single gold standard—a measure which, in his view, might be the cause of the greatest disasters." Mr. De Thoerner, the Russian delegate, expressed a decided adherence to the single standard of his country—gold, and desired the response construed to mean nothing outside of its exact language. Count Von Kuefstein of Austria, said that "in presence of the explanations which had been given, from which might be inferred an admission of the impossibility of an international agreement for the double standard, he felt himself obliged to declare that if he adhered to the formula proposed by the European delegates, it was precisely because in his view it did not exclude the idea that such an arrangement was possible."

The practical work of the conference closed with the reading of the following rejoinder, signed by the four American delegates, to the response of the European delegates:

"The representatives of the United States regret that they cannot entirely concur in all that has been submitted to them by a majority of the representatives of European states. They fully concur in a part of the first proposition, viz., that 'it is necessary to maintain in the world the monetary functions of silver as well as those of gold,' and they desire that ere long there may be adequate co-operation to obtain that result. They cannot object to the statement that 'the selection for use of one or the other of these two metals, or of both simultaneously, should be governed by the special position of each state,' but if it be necessary to maintain the monetary functions of both metals, as previously declared, they respectfully submit that the special positions of states may become of but secondary importance.

"From so much of the second proposition as assigns as a special reason for at present restricting the coinage of silver, 'that the disturbance produced during the recent years in the silver market has differently affected the monetary situations of the several countries,' they respectfully dissent, believing that a policy of action would remove the disturbance that produced these inequalities.

"In regard to the third and last proposition, they admit that 'some of the states which have the double standard,' or, as they prefer to say, use both metals, 'find it impossible to enter into a mutual engagement for the free coinage of silver.' They, as representatives of the United States, have come here expressly to enter into such an engagement. The difficulty is not with them; and wherever it may be, they trust it may soon be removed.

"They entirely concur in the conclusion drawn from this state of the case, that 'it excludes the discussion of the question of the adoption of a common ratio between the two metals.' It is useless to agree upon a ratio between the two metals if the nations are not ready also to adopt a policy to uphold it. We remain upon ours; the European states upon theirs."

From the beginning to the end it was evident that the little countries embraced with France in the Latin union had special interests to protect that made the broader views and leaning of the American delegates obnoxious to them. England, on the other hand, took a position at the conference that exhibited all the largeness of view that comes of imperial interests in all parts of the world. Favoring a silver unit on one side of the globe and a gold unit on the other, she hopes by the skill of her commercial transactions between the opposite parts to profit by the two different standards, rather than by the

joint-standard. What part of the membership of the conference represented the views of great banking houses rather than the interests of peoples, it would be difficult to determine; but that those interests are always likely to be too largely represented in such national conferences is evident. That Belgium and the Netherlands should have a vote in the conference equal to that of England, France, or the United States, is an absurdity. That little Switzerland, under the shadow of France, should be the sole determined advocate of the single gold standard was simply amusing. Yet her vote was half that of the United States. The effect of wide national diversity of interests was clearly seen in the broader views of those who represented the broader interests. The American delegates were conspicuous at the conference in this, and still more in the thoroughness of their intelligence, and the humanitarian scope of their aims.

The report of this monetary conference, prepared by Mr. S. Dana Horton, secretary of the American delegation, forms vol. 5 of the executive documents of the United States, printed by order of the senate in the third session of the XLVth congress, 1878-79. In addition to the journal of the proceedings of the conference, and a collection of the monetary papers and statistical tables submitted by each delegation, it contains a large variety of relevant matter of English and American legislation on money, with classic treatises and reports on monetary questions. Besides these it republishes entire the proceedings of the first monetary conference held in Paris, June, 1867; the whole forming a volume of 918 pages.

MONETARY TREATY OF PARIS, 1865. See LATIN UNION.

MONEY (*ante*). Originally, those substances in nature or of art which commerce among men proved to have the most general uniformity of value and convenience in use as measures of exchange of other commodities; which substances, being confirmed in such use, in civilized countries, by laws making them the sole legal tender as money, derive an increased, more certain, and more uniform value by reason of such legal confirmation of their sovereign use.

The laws pertaining to coinage formerly made by kings or ministers have been known in all ages to place in their hands a prodigious power for good or harm to their people. Since coined money has been largely displaced in modern times by legally authorized paper representatives of money, which have become *de facto* the principal actual money of all highly civilized peoples, and since this paper money is governed, like coin money, by the dominant law of convenience in use—as well as by the enacted laws of its confirmation, limitations, and powers as money—legislation pertaining to it has even greater power to promote or to destroy the prosperity of a people than when coin alone was the sport of kings. The laws which control the qualities or quantities of money, whether of coin or paper, have an influence on the public weal, vast and sudden beyond those enacted on any other subject. They strike at once every material interest of every citizen of the country which is subject to the laws. The examples of France and Germany, between 1871 and 1881, have furnished conspicuous illustrations of the helpful and hurtful power of legislation alone on money. It is especially within the present century, in Europe and in the United States, that all classes have realized this potency of legislation on money. The slightest modification of national laws concerning it affects every branch of trade, every industry, every investment. Yet a small number of the whole people, those whose business it is to deal in money as lenders or bankers, alone keep that close watch of legislation which enables them to control it unduly; so as to promote their own interests when laws are changed; or, if laws are likely to affect their interests injuriously, they are the first to be aware of the effects of changes and to guard against them. That prosperity or adversity may result to a majority of an entire people by a simple act of legislation on money, with a rapidity and a certainty that legislation on no other subject can parallel, has become obvious to all intelligent people. In England, 60 years ago, this subject attracted the observation of great numbers of able writers. But the legislation followed the interest of the moneyed powers, to the injury of the commercial and industrial classes. In France the philosophy of money, and the delicate nature of legislation on money, have called out the highest ability in its consideration for more than a hundred years. After the German war its financial administration was in the hands of Leon Say, son of a philosophic and practical financier and grandson of J. B. Say, whose works on political economy are authority to this day. Yet these men are only atoms in the mass of thought that has been given to this subject in France; whose present financial position is in part the result of its wisdom in money legislation.

The first American money that history informs us of was wampum and the dried cod-fish of Newfoundland. The latter were in general use as money, and answered the purpose better than any other material that could have been procured in that region. A single fish was a sufficiently small change for small transactions, and a mass of them not too cumbersome for the purchase of anything a barbarian would be likely to want. Only acquired by labor, easily preserved and transported, at all times useful to tribes away from the sea-shore, and exchangeable for what they had which the sea-shore Indians had not, its superior convenience to any other one commodity made its adoption for money natural. On the Atlantic coast south of Massachusetts another form of money of a higher type was found among the Indians. This consisted of small shells strung

like beads. They were of two kinds, white and black. The white was the periwinkle; the black was made with more labor out of the black part of a clam-shell, and was double the value of the white. Strings, groups of strings, and belts made of them were the money known as wampum. Not common enough to be found *ad libitum* and therefore representing labor in the acquisition; having the value of prettiness, lightness, divisibility by count, by strings, by belts,—this wampum was one of the most complete money measures known among barbarous nations. In the early days of the colonies, when coin money was scarce, wampum was adopted and used to great advantage in trading not only with the Indians, but among the colonists themselves. It will be seen that the sea-shore Indians had the advantage of the interior Indians in the manufacture of this money, and could buy furs, corn, and feathers probably with less labor in procuring wampum than the latter had in procuring these articles. Wampum was made a legal tender in the Massachusetts colony for 12d. only. A belt of it was 6 ft. long, and consisted of 360 beads. A white belt in Massachusetts in the early time of its settlement was the equivalent of 5s. worth of furs, and a black belt of 10s. worth. Three beads of the black and six of the white were equal to one penny. The value of this money was, after a time, seriously deranged by “an inflation” caused by the importation of beads. The Indians, seeing their superior beauty and ignorant of the illimitable quantity of them, made exchanges to great disadvantage with the whites, who imported the beads by the barrel.

In 1641, in the Plymouth colony, corn was made a legal tender for the payment of debts, “to save the debtor from the inequity of forcing him to great sacrifices in consequence of the scarcity of the money of the realm.” About 1650 the exports of Massachusetts were bringing in returns of gold and silver Spanish coins. In 1652 a mint was set up in Boston to make a set of coins for home circulation, and the colonists made laws to impede the circulation of Spanish coins in order to drive them to the mint; thus recognizing, what every nation sooner or later learns, that for domestic exchanges a non-exportable currency is desirable. For some time later the lack of any sufficient recognized money in the New England colonies caused the tax collectors to be authorized to receive corn, cattle, furs, and lumber for taxes, and the local authorities were obliged to furnish accommodation for these commodities; but “lank cattle” were refused. In 1655 wampum was still received for taxes at the rate of six shells to the penny, and the limitation to 12d. as legal tender does not seem to have applied to taxes. In 1675 it was ordered by the Massachusetts colonial council that “instead of transporting barter payments of taxes to and from the treasury, the transfers should be made by paper orders.” In 1686 a bank of issue sprang into existence and soon went out. The mint was discontinued in 1688. In 1690 the colony issued notes for about one-seventh of the debt contracted by a disastrous expedition against the French in Canada, and made them receivable for taxes and for goods paid into the treasury for taxes. In 1692 a premium of 5 per cent over coin was allowed at the colonial treasury for these bills, and they remained at par for 20 years.

In Connecticut about this time different kinds of money were scaled in payments. Plain “pay” was barter at the government rates. “Money” was Spanish or New England coin and wampum for change; 12d. “pay” equaled 6d. “money.” After 1700 Massachusetts issued paper money to a moderate extent. It was received for taxes and held at par with coin. In 1709 to 1711 Massachusetts, New Hampshire, Rhode Island, Connecticut, New York, and New Jersey joined in an expedition against Canada. The first colony increased its paper money moderately, and Rhode Island immoderately, and lengthened the term for its payment. The arts of banking were at this time engaging the attention of schemers the world over. John Coleman in Boston proposed a plan to issue notes on land security. The council did not permit him, but did itself in 1715 “bank,” that is, issue, £30,000 of notes payable in coin in 10 years. The time of payment was deferred as the term approached. In 1721 another “bank” of money was issued, drawing interest to the government, payable in hemp or flax.

In 1723 Pennsylvania authorized the issue of colonial paper money to the amount of £15,000, to be apportioned among its counties according to the amount of their taxable property, and to be loaned by the county commissioners for 16 years at 5 per cent interest, and one-sixteenth of the principal, annually. Notes paid back during the first ten years were to be loaned again for the remainder of the period. In 1729, when Benjamin Franklin commenced the publication of his first newspaper, the question of an additional issue was being discussed. About 40 years afterwards Franklin, in his autobiography, thus alludes to the subject: “About this time there was a cry among the people for more paper money; only £15,000 being extant in the province, and that soon to be sunk. The wealthy inhabitants opposed any addition, being against all paper currency, from the apprehension that it would depreciate, as it had done in New England, to the injury of all creditors. We had discussed this point in our junta, where I was on the side of an addition; being persuaded that the first small sum struck in 1723 had done much good by increasing the trade, employment, and number of inhabitants in the province; since I now saw all the old houses inhabited, and many new ones building; whereas I remembered well, when I first walked about the streets of Philadelphia, eating my roll, I saw many of the houses in Walnut street between Second and Front streets, with bills on their doors “to be let,” which made me think the inhabitants of the city

were one after another deserting it. Our debates possessed me so full of the subject that I wrote and printed an anonymous pamphlet entitled *The Nature and Necessity of a Paper Currency*. The utility of this currency became by time and experience so evident, that the principles upon which it was founded were never afterwards much disputed; so that it grew soon to £55,000; and in 1739 to £80,000; trade, building, and inhabitants all the while increasing. Though I now think there are limits beyond which the quantity may be hurtful" (Spark's Franklin, vol. i, pp. 90-92).

About 1720 the commissioners of the New England colonies became alarmed at the tendency to further increase of paper notes for money, and recommended its stop. The English parliament forbade banking except under its charter, and forbade the colonial governments from emitting bills. Later the restriction was modified to permit an issue for government expenses only. In 1739 a "land bank" was set in operation in Philadelphia, which loaned its notes for 3 per cent per annum interest, and 5 per cent in principal, *both payable in merchandise*. This is one of the first American examples of the fertile banking which secures a payment of merchandise for the loan of a debt. This bank became a strong factor in politics, and as fortunes were to be made through it by the managers without any capital risked by them, they could afford to agitate energetically. "The land bank," says Sumner, "resisted its fate by social and political intrigues." In 1740 parliament required its wind up, but it managed to evade the requirement. The history of the shifts made use of to take up, to pay, and to re-issue paper money in Massachusetts and the other New England colonies for the next 30 years, is simply the example of how legislation, controlled first by men with one interest, and then by men of another interest, without any philosophic, disinterested statesmanship to harmonize conflicting interests, can keep up a financial agitation injurious to all parties. The history of the colonial paper money issues of Pennsylvania, on the other hand, which started on a more sound and philosophic basis, is much more satisfactory; and although in the end the original chart was lost sight of, the benefits far outweighed the injury resulting from their excesses.

At the beginning of the revolution the Continental congress issued its note money in addition to that which the colonies separately had already issued, and were continuing to issue under different laws and with various degrees of prudence. The first joint or "continental" issue was in Aug., 1775, for 300,000 Spanish dollars, payable in three years. Other issues followed rapidly. These notes generally passed at par with gold and silver until the latter part of 1776, when their amount reached \$20,064,000. The following table condensed from Gouge's *History of Continental Money*, gives the issues and depreciation:

Amount issued up to, and inclusive of the year—

	1776	\$20,064,464	{ Rate of exchange }	Jan. 1, 1777	1½ for 1
Added in	1777	26,426,333	{ for gold or silver }	" 1778	4 "
"	1778	66,965,269	" "	" 1779	9 "
"	1779	149,703,856	" "	" 1780	45 "
"	1780	82,908,320	" "	" 1781	100 "
"	1781	11,408,095	" "	" 1782	500 "
Total		\$357,476,541			

The French alliance in 1779 enabled congress to borrow money, and it attempted to limit the outstanding issues of paper money to \$200,000,000, but did not. The loss of value of the entire issue became complete in 1781, and having been gradual as it passed from hand to hand through several years came to be regarded in the light of an involuntary tax for the maintenance of the war, which in general had fallen severely on people according to their means, though in cases it produced shameful wrongs. But, says Phillips, "if it saved the state it also polluted the equity of our laws."

In Jan., 1782, the bank of North America, chartered with a capital of \$400,000, opened in Philadelphia. It was a private bank, having the confidence and support of the Continental congress. \$70,000 in specie were put into its capital by citizens, and the remainder by the government in specie or foreign exchange out of a foreign loan. The bank had its origin in a union of Philadelphia citizens to supply the army. They issued the bank's notes in pay for them. Gouge, in his *History of Paper Money and Banking in the U. S.*, published in 1833, shows that it was a mistake to suppose that that bank aided the government; as its stockholders only paid in \$70,000, or seven-fortieths of its capital. The government deposited \$254,000, and was credited by Robert Morris with that amount of stock in the bank. The individual directors thus acquired the power to circulate \$400,000 in the bank's notes, and loaned the government and others their own money and the \$400,000 additional money which the government's deposits and sanction soon made current at par. The dividends were soon from 12 to 16 per cent for the stockholders, with fat livings for the organizers. "In 1785," says Gouge, "the effects of its operation began to be apparent. A temporary plentifulness of money, followed by great scarcity, usury, ruin to the many, riches to the few." In 1785 the Pennsylvania legislature repealed the bank's charter, but it continued operations by virtue of the congressional charter, and managed to get a renewal afterwards from the state by means

of its great monetary influence. From the beginning of 1780 till the close of the war hard money is said to have been plenty; caused by considerable sums disbursed by the French and British armies, by the loan made to the government, and by commerce with the West Indies. France spent \$3,000,000 in specie to meet her army and navy expenses, besides what came through her as loans. Such was the flux of specie to America then that in both France and England the drain was seriously felt.

In 1787 the clause in the new federal constitution that no state "shall coin money, emit bills of credit, or make anything but gold or silver coin a tender in payment of debts" would seem to have forever barred a state, not only from issuing bills of credit, but from giving charters to banks of issue; as it seems absurd that a state legislature may delegate a power to private corporations which the constitution has denied to the state itself. But the profits of the bank of North America in Philadelphia had stimulated banking; Massachusetts, New York, and Maryland gave charters to banks which the U. S. courts did not abrogate. The system of state banks thus begun did not terminate till congress wrestled with the subject and suppressed them during the great rebellion. In 1791 congress chartered the first U. S. bank. See NATIONAL BANKS and PAPER MONEY OF THE UNITED STATES. About 60 state bank charters were issued prior to 1800. Their subsequent increase and separate history in each state is without the pale of this article.

THE UNIT OF VALUE AND COINAGE LAWS OF THE UNITED STATES. In 1785 congress adopted the silver dollar as the *unit of money*. On April 2, 1792, in the law establishing a mint, it enacted that "The money of the United States shall be expressed in dollars or units;" the dollar "to be of the value of a Spanish milled dollar as the same is now current," and to contain $371\frac{1}{4}$ grains of pure silver. The same act fixed the weight of the gold eagle at $247\frac{5}{16}$ grains, or $24\frac{7}{100}$ grains to the dollar, which made the ratio of value of silver to gold, by weight, as one to fifteen. In 1834 the weight of pure gold in the eagle was reduced to 232 grains, no change being made in the weight or fineness of the silver-unit dollar. This made an ounce in gold equal as a legal tender to 16.045 oz. of silver, thus increasing the legal value of the previous coinage of U. S. gold coins nearly 7 per cent. In 1837 the composition of both the gold and silver coinage was changed, but the dollar retained the same quantity of pure silver, while the quantity of pure gold in the eagle was increased to $232\frac{2}{16}$ grains so that the legal equivalency of gold to silver by weight was 15.988 of silver to 1 of gold. That has been the legal relationship of U. S. coins of the two metals to the present time. The quantity of pure silver in the unit dollar of the United States has remained unchanged since its adoption in 1785 and its confirmation by the coinage act of 1792. The weight of the gold eagle has been changed twice. While the legal value of silver to gold was as 1 to 15, gold was at a premium, and disappeared from circulation to pay foreign debts, as it would pay more than at home. After the ratio of 16 to 1 made by the law of 1834, until 1874, the silver dollar bore a premium over the gold dollar in the London market of from 1 to 3 per cent. Silver in consequence became scarcer, but did not entirely disappear, as gold would have done under the same condition, on account of its indispensableness for small change and the greater expense of its shipment. But to counteract the tendency to its export in consequence of its under-valuation relatively to gold, congress found it necessary to pass the act of Feb. 21, 1853, reducing the old proportion of pure silver in coins smaller than the dollar, and limiting the amount of these that could be used as legal tender to five dollars. Before that time no silver coin except the 3-cent piece was below the standard fineness of the silver-unit dollar. This act retained in the country all the small coins minted by the United States; but the standard silver dollars, being exported as fast as made, were coined less and less.

Soon after the breaking out of the rebellion in 1861, the U. S. government was obliged to provide money for carrying on the war on a scale gigantic compared with what had previously been known; and during the four succeeding years had recourse to the issue of U. S. legal tender notes and bonds for that purpose, and the organization of the U. S. national bank system. The history of the monetary legislation of this period, and the subsequent legislation that resulted from it, will be found under the heads—BANKS and BANKING, and DEBT, NATIONAL. Also, see GREENBACKS.

We now resume the history of recent legislation pertaining to metallic money.

The act of Feb. 12, 1873, now known as the demonetizing act, was one of 67 sections, matured in committee and presented to congress as an act to regulate the details of coinage at the mint. It was presumed to collate and embrace in one act all previous legislation on the subject of U. S. money. It did not demonetize the standard silver dollar. It did not make anything else the unit of value. But it only authorized the coinage of silver into half and quarter dollars and dimes (according to the reduced standard of 1853), and into a trade dollar above the standard of the unit dollar; and prohibited these coins from being a legal tender for more than five dollars in any one payment. The act contained no change in the old unit dollar. It simply omitted to mention it as one of the coins to be made at the mint, and practically accomplished its demonetization by the following words in "Sec. 17. No coins either of gold, silver, or minor coinage, shall hereafter be issued from the mint, other than those of the denominations, standards, and weights, herein set forth." This act which thus in effect, though not in terms,

demonetized silver, except for small change, was not generally known to have that effect until two or three years after its passage. Eminent and careful statesmen of both houses of congress then admitted frankly that the nature and effect of this part of the bill were a complete surprise to them. It was a part of a well concerted policy begun in Europe to bring about the single gold standard, but which inaugurated a revolution in money far more momentous in its consequences, than its supporters themselves had any conception of. See MONETARY COMMISSION, CONGRESSIONAL, 1876; and MONETARY CONFERENCE, PARIS, 1878. The legislation in congress to complete the demonetization of silver was closed by these words in section 3,586 of the revised statutes: "The silver coins of the United States shall be a legal tender at their nominal value for any amount not exceeding five dollars in any one payment." Thus the stop of coinage of silver dollars by the act of Feb., 1873, was phrased in the revised statutes so as to destroy the legal tender of the silver dollar without any act having been passed to that purport. In the language of the report of the joint monetary commission of the 44th congress appointed Aug. 15, 1876, "the ancient money of the country, instead of being intentionally legislated out of existence by congress, was revised out of existence." The main reason given in congress at the time of the passage of the coinage act for ceasing to coin the silver dollar, was that its value was 3 per cent above the standard for a gold dollar. It was "standing guard against a rise in gold." The following is a copy of the provisions of the revised statutes down to Mar. 4, 1875, concerning all forms of legal tender money then recognized:—

"Sec. 3,584. No foreign gold or silver coins shall be a legal tender in payment of debts.

"Sec. 3,585. The gold coins of the United States shall be a legal tender at their nominal value when not below the standard weight and limit of tolerance provided by law for the single piece, and when reduced in weight below such standard and tolerance, shall be a legal tender at valuation in proportion to their actual weight.

"Sec. 3,586. The silver coins of the United States shall be a legal tender at their nominal value for any amount not exceeding five dollars in any one payment.

"Sec. 3,587. The minor coins of the United States shall be a legal tender at their nominal value for any amount not exceeding 25 cents in any one payment.

"Sec. 3,588. United States notes shall be lawful money, and a legal tender in payment of all debts public, and private, within the United States except for duties on imports and interest on the public debt.

"Sec. 3,589. Demand treasury notes authorized by the act of July 17, 1861, chap. 5, and the act of Feb. 12, 1862, chap. 20, shall be lawful money and a legal tender in like manner as U.S. notes.

"Sec. 3,590. Treasury notes issued under the authority of the acts of Mar. 3, 1863, chap. 73, and June 30, 1864, chap. 172, shall be legal tender to the same extent as U.S. notes, for their face value, excluding interest: *Provided*, That treasury notes issued under the act last named shall not be a legal tender in payment or redemption of any notes issued by any bank, banking association, or banker, calculated or intended to circulate as money.

At the end of 1874 certain sagacious minds became aware of the concerted action among great holders of government securities in Europe and the United States to procure the entire demonetization of silver, and the general adoption of the gold unit of value; and sounded the alarm that so great a revolution as the entire suppression of the money function of one half the money of the world ought to awaken. The more the subject was thought of, the greater seemed the impending danger, so that when the subject came up for discussion in the 45th congress it absorbed public attention more than any other. The exhaustive debates in the press and in congress on an act, known as the Allison bill, entitled "*An act to authorize the coinage of the standard silver dollar, and to restore its legal tender character*," resulted in a vote in the house of representatives, passing the bill by a majority of more than three to one, without division by party lines. President Hayes vetoed the bill, and congress promptly repassed it on Feb. 28, 1878, by a vote of 46 yeas to 19 nays in the senate, and 196 yeas to 73 nays in the house. It forms chap. 20 of the acts of the 45th congress. Sec. 1. provides for the coinage of the original silver dollar of the same weight, fineness, devices, and superscriptions, required by the act of 1837; that it, and all previously coined silver dollars of the United States shall be a legal tender at their nominal value, for all debts and dues public and private except where otherwise expressly stipulated in the contract; that the secretary of the treasury is authorized and directed to purchase from time to time, silver bullion, at the market price thereof, not less than \$2,000,000 worth per month, and cause the same to be coined monthly, as fast as so purchased into such dollars, "provided that the amount of money at any one time invested in such silver bullion, exclusive of such resulting coin, shall not exceed \$5,000,000; and provided further, that nothing in the act shall be construed to authorize the payment in silver, of certificates of deposit issued under the provisions of sec. 254. of the revised statutes," Sec. 2. provides that the president after the passage of the act shall invite the countries composing the Latin union, so called, and other European governments to join the United States in a conference "to adopt a common ratio between gold and silver, for the purpose of establishing internationally, the use of bi-metallic money," to which conference he should appoint three commis-

sioners. See MONETARY CONFERENCE, PARIS, 1878. Sec. 3. provides that "any holder of the coin authorized by this act may deposit the same with the treasurer or any assistant treasurer of the United States, in sums not less than ten dollars, and receive therefor certificates of not less than ten dollars each, corresponding with the denominations of the U.S. notes. The coin deposited for, or representing, the certificates shall be retained in the treasury for the payment of the same on demand. Said certificates shall be receivable for customs, taxes, and all public dues, and, when so received may be re-issued."

The total product of the United States mints in coins of gold and silver and baser metals from 1793 to 1880, inclusive, are here given:

Years.	Gold.	Silver.	Small Coins, Alloy.
Prior to 1835.....	\$15,780,160	\$39,690,099	} \$11,919,888
1835 to 1852 (inclusive).....	221,011,460	39,523,292	
1853 to 1873 (inclusive).....	580,114,258	65,928,512	
1874.....	50,442,690	5,983,601	
1875.....	33,553,965	10,070,368	411,925
1876.....	38,178,962	19,126,502	220,375
1877.....	44,078,199	28,549,935	260,350
1878.....	52,798,980	28,290,825	62,125
1879.....	40,986,912	27,227,882	30,694
1880.....	56,157,735	27,942,437	97,798
Each Total.....	\$1,133,103,321	\$292,333,432	269,971
			\$13,283,166

Total United States coinage for 87 years.....	\$1,438,719,925.
---	------------------

Secretary Sherman in the treasury report for 1880, estimates:

The gold coin and bullion in the United States, Oct. 1, 1880..	\$453,882.692
The silver “ “ “ “ “ ..	158,320.911

The gold coin and bullion in the United States, Oct. 1, 1899..	\$158,332,992
The silver " " " " " " ..	158,320,911

Total specie in circulation, in banks and treasury of U. S.... \$612,203,603

United States notes (greenbacks) outstanding, Oct. 1, 1880.... \$346,681,016

United States notes (greenbacks) outstanding, Dec. 1, 1900.....	\$318,881,818
National bank notes	343,949,893

Total paper money authorized by national legislation..... \$690,630,909

There was held in the U. S. treasury at the above date, mostly in gold and silver coin and bullion, \$201,088,622. Deducting this from Mr. Sherman's estimate of the total specie in the country, it would leave a balance of about \$400,000,000, to be divided between bank reserves and circulation. This is believed to be an over-estimate. It is probable that the amount of specie in actual circulation, together with the paper currency of the country, amounts in 1880 to very near \$1,000,000,000, or \$20 per head of the population. The following table gives the currency statistics of the United States for the past 15 years. No estimate is made of the gold and silver coin in circulation between 1865 and 1877, as it was scarcely used during that time except at the custom houses and in California. The amount in use was probably under \$50,000,000:

MONEY IN THE UNITED STATES FROM 1865 TO 1880, INCLUSIVE.

Year.	UNITED STATES ISSUES.			Notes of National Banks including Gold Notes.	Coin in Circulation Estimated.	Aggregate.
	Legal Tender Notes.	Old Demand Notes.	Fractional Currency.			
1865.....	\$432,757,604	\$402,965	\$26,344,742	\$176,213,955	.....	\$635,719,236
Jan. 1,						
1866....	425,839,319	392,070	26,000,420	298,588,419	.....	750,820,228
1867....	380,276,160	221,682	23,732,812	299,846,206	.....	709,076,860
1868....	356,000,000	159,157	21,597,583	299,747,569	.....	687,504,279
1869....	355,892,975	128,098	34,215,715	299,629,322	.....	689,866,110
1870....	356,000,000	113,098	39,762,664	299,904,029	.....	695,779,791
1871....	356,000,000	101,086	39,955,089	306,307,672	.....	702,403,847
1872....	357,500,000	92,801	40,767,877	323,465,431	.....	726,826,109
1873....	358,557,907	84,387	45,722,061	314,582,812	.....	748,947,167
1874....	378,401,702	79,637	48,544,792	350,848,236	.....	777,874,307
1875....	382,000,000	72,317	46,390,598	354,128,250	.....	782,591,165
1876....	371,827,220	69,642	44,147,072	346,479,756	.....	762,523,600
1877....	366,055,084	65,462	26,348,206	321,595,606	\$50,000,000	764,064,558
1878....	349,943,776	63,532	17,764,109	321,672,505	100,000,000	789,443,922
1879....	346,681,016	62,035	16,108,159	323,791,674	150,000,000	836,642,884
1880....	346,681,016	61,350	15,674,304	342,387,336	200,000,000	904,804,006
Nov. 1,						
1880....	346,681,016	60,825	7,181,861	343,834,107	250,000,000	947,757,809

The following table, except as to the United States, is from the *American Almanac* for 1880, showing the population and the amount of money in circulation in different countries:

Country.	Date.	Population.	Paper Money.	Gold.	Silver.	Total.	Per Capita.
Austria.....	1869	35,904,435	\$322,938,854	\$43,300,000	\$27,360,000	\$393,498,854	\$10.95
Australia.....	1879	2,600,000	21,604,936	45,000,000	5,000,000	71,604,936	27.54
Belgium.....	1876	5,336,185	58,419,000	110,000,000	64,000,000	232,419,000	43.55
France.....	1876	36,905,788	466,755,000	733,400,000	425,844,850	1,159,244,850	44.06
Germany.....	1875	42,727,360	229,596,230	328,168,462	214,939,957	772,704,639	18.08
Great Britain.....	1871	31,628,338	209,148,875	618,619,043	93,376,168	921,144,086	29.11
Italy.....	1871	26,801,154	135,000,000	17,000,000	20,000,000	172,000,000	6.42
Netherlands.....	1869	3,579,529	73,230,000	20,000,000	57,980,000	151,210,000	42.24
Russia.....	1876	86,952,347	587,907,562	108,000,000	2,500,000	698,407,562	8.03
Switzerland.....	1870	2,759,854	21,300,000	60,000,000	34,700,000	116,000,000	42.03
United States... }	1870	38,558,371	695,779,791	30,000,000	20,000,000	745,779,791	19.31
	1880	50,152,554	697,737,812	200,000,000	50,000,000	947,737,809	18.90

The table, imperfect in not giving money circulation of the several countries at the same date, is nevertheless near enough their average condition financially to indicate their wealth and their financial policy. The comparison between the relative wealth of Russia and Switzerland is curious. The ratio of currency per capita varies far more among nations than has generally been supposed; and although in general the countries having the most accumulated wealth have the greatest ratio of money in circulation, the proportion is not uniform; and the proportion of the whole currency of each, to the amount of gold and silver that each controls, is not apparently subject to any law. The table would seem to lead to the conclusion that the most intelligent and active commercial nations use the most per capita. This would certainly be true where business is principally conducted on the cash system.

Persons desirous of studying money questions will find the most complete list of works to choose from in the appendix to vol. 5. of the executive documents of the 3d session of the 45th congress, being the report of the commission appointed to represent the United States in the monetary conference in Paris in 1878. The books and pamphlets are there arranged in chronological order down to the beginning of 1879. A large part of the most valuable literature on the subject is in the form of pamphlets. Among the most instructive of recent books the following is a selected list of those in the English language: *Money and Trade*, 1879, by prof. Francis A. Walker of N. Y.; John Sherman's *Speeches and Reports on Financial Questions*, 1 vol., 1879; *Silver and Gold*, 1876, and *The Monetary Situation*, 1878, both by S. Dana Horton of Cincinnati; *Gold and Debt*, W. L. Fawcett, Chicago, 1877; *The Money Question*, by W. A. Berkey, Grand Rapids, Mich., 1876; Senate document, *Report of the Monetary joint committee of Congress in 1877*; *Report of the Paris Monetary Commission of 1878*, just mentioned. These government reports are compendiums of facts and opinions of great value. Sumner's *History of American Currency* is a racy sketch, but crude in its reflections. *Money and the Mechanism of Exchange*, by W. S. Jevons of London, is one of the high authorities on money in connection with banking. The most valuable old work on "Paper-money and Banking in the United States" is that of Wm. M. Gouge, Philadelphia, 1833. Kellogg's *New Monetary System*, 1837, is a remarkable elaboration of speculative philosophy concerning money. *The Ways and Means of Payment*, by Stephen Colwell, Philadelphia, 1859, is an analytic treatment of money and credit of high value.

For practical elucidations of the money questions of the day, the works of French writers are among the clearest. The following are eminent: Henry Cernuschi, Emile de Lavaleye, M. Leon Say, Victor Bonnet, M. Chevalier, E. de Parieu. Of modern British authors, Walter Bagehot, W. T. Thornton, Stephen Williamson, Ernest Seyd, W. Stanley Jevons, John Stuart Mill; and of old writers bishop Berkeley and Adam Smith are classic authorities on various sides of money questions. C. Feer Herzog, of Switzerland, is the great champion of a single gold standard. His works are published both in French and German. Count Charles Rusconi is an eminent Italian monetary statesman and writer.

MONGOLIA (MONGOLS, *ante*), "the country of the Mongols," comprises a vast extent of territory in the interior of Asia, and forms a part of the Chinese empire. It extends over an area of 1,300,000 sq. m., between lat. 37° and 54° n., and 85° and 125° e. long., and is bounded on the n. by Siberia, e. by Mantchooria, s. by China proper, and w. by e. Turkistan and Dzungari; pop. 2,500,000, of whom 500,000 are Chinese. It is more than 1700 m. in length; its width, from n. to s., varying between 600 and 1000 miles. For the most part it is a high table-land, 3,000 ft. above the level of the sea, arid, without running water, and without important vegetation. The central portion is the great desert of Gobi, extending s.w. and n.e., from the boundary-line of the province of Kansu to the Dalai Nor, near the boundary of Dauria, having an average width of 200 miles. This is the worst part of the country, the surface being covered with sand and

stones, and the vegetation scanty and occasional. Vast tracts are level; but, at great distances from each other, there are hills of moderate elevation. The entire region is destitute of trees, and the water, which is only found at some distance below the surface, is brackish. South-east of the Gobi extends a more elevated and uneven country, terminating in a mountain range of considerable height. This range, the Alashan or Ho-lang Shan, begins near the most southern point of Mongolia, near the banks of the river Hoang-ho, and extends northward along that river nearly 400 miles. Near 42° n. lat. it turns abruptly to the e., forming nearly a right angle, and continues in this direction about 600 m., being now under the name of Inshan. It finally proceeds in a n.e. direction from 42° to 55°. Its highest point has an elevation of more than 15,000 ft. above the sea. The country skirting this range is unfit for agriculture, and is only used as pasture-ground. South of the Inshan mountains there are fertile valleys and mountains partly wooded. To the e., and extending to the Yellow sea, is a narrow tract of fertile land. And southward, again, the country contains numerous meadows clothed with rich grass, where agriculture has been introduced by the Chinese, who send thither criminals who have been condemned to transportation. The most southern district is the haunt of wild animals, including tigers and leopards, and is the hunting-ground of the Chinese. It contains the palace of Ichol, which was described by sir George Staunton. The country which extends along the n.w. side of the desert of Gobi is little known, with the exception of the e. part, which is traversed by the caravan road from Kiachta in Siberia to Khalgan in China. Here the surface of the country is frequently broken by hills and isolated ridges; but the intervening level tracts contain rich pasture-ground. It is mostly well watered, but wood is scarce. In advancing northward the hills are higher, and the valleys, or intervening tracts, grow narrower, till near the boundary-line between Mongolia and Siberia the country rises into mountains, which run in a continuous chain, and are a portion of the Altai mountains. Here originate the principal rivers of Mongolia, the Selenga and its numerous upper branches; the Kerlon and the Onon, which, by their union, form the Amur. This country is rich when compared with the other parts of Mongolia. The western part of Mongolia is traversed by a mountain range, which, near its w. extremity, is connected with the Altai mountains not far from the e. bank of the Irtysh. That portion of the country which lies s. of this range seems to partake largely of the nature of the Gobi, extending mostly in sterile plains. The Irtysh is the largest river in this country, and runs about 160 m. before it falls into lake Zaizan. The climate of the whole of Mongolia is generally cold, though it is subject to sudden changes, and in summer is insupportably hot. The snow-fall, however, is very light. The wealth of the Mongols consists in their numerous herds of cattle (on the more hilly tracts), camels, horses, and sheep. Wild animals are numerous, including hares, antelopes, wild asses, foxes, deer, sables, squirrels, and marmots. Water-fowl are plentiful in the lakes which abound in the n.w. part. The wolves are numerous and savage, attacking even the shepherds in preference to the sheep: there are also the brown and black bear, the yak, and the ounce. The double-humped or Bactrian camel is domesticated for its milk. It is remarked that in the southern portion, where the Chinese practice agriculture, the temperature has risen with the progress of cultivation of the soil, and that grain is now grown there, and ripens readily, which could not formerly be cultivated on account of the cold. The Mongols are generally nomadic, and live in tents. They have sometimes been curiously confounded with the Tartars, and Mongolia is called Tartary on many old maps. No two nations could physically be more distinct, though both are addicted to the same nomadic mode of life. The Tartars belong to the Turki race, from whom the European Turks are descended. The Mongol race, which is far more numerous than the Tartar, is dispersed over almost all the eastern countries of Asia, but it is to the restless hordes of middle Asia, and to the Buriates, Bashkirs, Kalmucks, and other roving tribes that the name of Mongols is chiefly restricted.

MONGOUS. See ICHNEUMON, *ante*.

MONHEGAN ISLAND, off the coast of Hancock, co., Maine. Pop. 145. The first account of it is by capt. John Smith. It has a stone light-house.

MONITA SECRETA SOCIETATIS JESU, secret instructions for the Jesuitic order, in a volume first published at Cracow, 1612, in Latin from the Spanish, by an unknown editor. It was then and afterwards regarded by scholars as the work of Claude Acquaviva, the general of the order, exercising over it complete control, and esteemed the ablest and most profound politician of his time. He did nothing to prove the book a forgery, and, so far as known, did not deny that he was the author. It continued unmolested until his death. In 1615 a commission was appointed to search out the author, but none was found. In the following year the book was placed in the Index. In 1633 Casper Schoppe, a German scholar, published an account of a book which had fallen into his hands, and which proved to be the same as the *Monita Privata*, but had been obtained from a source independent of the first. In the British museum there is a volume printed at Venice in 1596, which contains on several manuscript leaves, in writing of an ancient date, the whole of the *Monita Secreta*. In 1658, during Cromwell's administration, an edition of the book was printed in England. On the continent a French version was printed in 1661, and a second edition of Schopp's book in 1668. In 1669 Henry Compton, canon of Christ church, Oxford, published an edition found in

MS. in a Jesuit's closet after his death, thus supplying an additional copy independent of all the others. In 1713 Henri de St. Ignace published the *Monita Secreta* in an appendix to his work on the necessity of reforming the order. This passed through four editions. In 1717 the book was published at Amsterdam, and in 1727 at Cologne. After the suppression of the order in 1773 several MSS. were found in their colleges and other resorts. In 1782 a MS. found in Rome was printed there, as was thought by the editor, for the first time. In 1831 an edition was published at Princeton, N. J., and in 1844 it was reprinted at New York. In the 17th c. Dr. Johann Gerhard referred to the book as undoubtedly genuine, and his opinion was indorsed by nearly all Protestant church historians. M. Gachard, a man of great learning and sagacity, whose critical investigations Prescott and Motley highly esteemed, says that at the suppression of the Jesuit order in the Netherlands there were discovered in one of their colleges some of their most important papers, among which were the *Monita Secreta*; that a translation of the book was made by order of government, and still exists in the archives of the kingdom. This, he testifies, differs in nothing that is material from that which has been made public. On the other hand, the eminent church historian Gieseler decided against the genuineness of the book; Isaac Taylor, in his article on the Jesuits, contained in the 8th edition of the *Encyclopædia Britannica*, says that the *Monita* is believed to be a spurious production; and prof. Schem, in the *Biblical Cyclopædia* of McClintock and Strong, says that the book was not written by a Jesuit, but is a satire.

MONITEAU, a co. in central Missouri, bounded n.e. by the Missouri river; drained by Saline, Moniteau, and Moreau creeks; 400 sq.m.; pop. '80, 14,349—13,376 of American birth. It is intersected by the Missouri Pacific railroad, and by a branch of the St. Louis, Kansas and Northern. The surface is rolling and broken; in great part covered with valuable forests. Indian corn, wheat, oats, and pork are the staples. Iron, lead, bituminous coal, and several varieties of limestone, used as building material, are found. There are several flourishing towns. Co. seat, California.

MONK. See **MONACHISM**; **MONASTERY**; *ante*.

MONMOUTH, a co. in e. central New Jersey, bounded on the e. by the Atlantic, and n. by Sandy Hook and Raritan bays; drained by the Neversink, Shrewsbury, Shark, and Tom's rivers, and intersected by the Central New Jersey, New Jersey Southern, and Freehold and Jamesburg Agricultural railroads; about 500 sq.m.; pop. '80, 55,535—4,712 of foreign birth. The surface is very level, sandy near the sea, but fertile in the interior; potatoes, wheat, oats, butter, and hay are the staples; of potatoes, the annual yield is over a million bushels. Long Branch (q.v.), a fashionable watering place, is situated on the coast of this county.

MONMOUTH, a city in Illinois, at the junction of the Chicago, Burlington and Quincy, and the St. Louis, Rock Island, and Chicago railroads; pop. '70, 4,662. It is the county seat of Warren co., in a fertile agricultural region, where beds of bituminous coal are found. It is 15 m. s.w. of Galesburg, 28 m. n.e. of Burlington, Iowa, and 47 m. s. of Rock Island. It is the seat of Monmouth college (United Presbyterian), open to both sexes, organized 1857, having a library of 1850 vols.; also of the theological seminary of the northwest, organized 1839, having a library of 2,442 volumes. It has a commercial college, a public library, an academy, excellent public schools, 5 hotels, 3 national banks, 9 churches, public halls, a court-house, and a fine opera house. There are 3 newspapers, 2 monthly magazines and two grain elevators. It has flour and planing mills. Its leading industries are the manufacture of agricultural implements, woolen goods, machinery, files, furniture for churches and schools, carriages, etc.

MONMOUTH, BATTLE OF, so-called, though the battle occurred at Freehold, N. J., which is in Monmouth co., and which point sir Henry Clinton had reached, after his evacuation of Philadelphia, when attacked by gen. Washington's little army. The battle took place June 28, 1778, and was opened by gen. Lee, who commanded the advance of the American force, numbering about 4,000 men. Lee's attack was met by more serious resistance than he had anticipated; or, probably, his raw and worn-out volunteers, who had hardly yet recovered from the terrible winter at Valley Forge, were in no condition to fight the British veterans. A rout of the Americans was the result, and they fell back on the main body, which was commanded by Washington in person. The latter was enraged at seeing the disorderly retreat, and upbraided Lee in the most violent and bitter manner. He then took command himself, rallied the fugitives, and a sharp engagement commenced. The American force was advantageously posted on a height, protected by marshy ground, and where they could use their artillery with good effect. Lee was permitted to resume command of his men, and succeeded in holding his position until ordered at last to retire, which he did in good order. The left of the American line was commanded by lord Stirling, and here some sharp fighting took place, the British making strenuous but inadequate efforts to turn it. Failing in this, they directed their attention to the American right, under Greene, with Wayne posted in good position in an orchard, where he succeeded in keeping up a galling fire upon the enemy, under cover of the trees. The latter made every effort to oust the Americans from this position; and here col. Moncton fell at the head of his grenadiers while making an attack. It becoming evident to the British commander that the Americans were too strongly placed to be

dislodged, he ordered his men to fall back. The battle ended with this movement, the Americans not being strong enough to follow up their slight advantage; and during the night the British made a hurried retreat, undiscovered. This was one of the occasions during his life when gen. Washington completely lost his temper; and for the error or cowardice which occasioned this, Lee was court-martialed, and his command was taken from him for one year.

MONNIER, HENRI BONAVENTURE, b. Paris, 1799; educated in Paris, and taking up the pencil and pen after essaying trade. In 1825 his pen-sketches had already attracted much attention, and he increased the reputation of his work by its circulation through the then new art of lithography. In 1826 he illustrated the poems of Béranger and the fables of La Fontaine, and increased his reputation for the creation of character types. After becoming famous for this work, he began to write laughable mimics of humorous scenes in the lives of the people of the street, of which his works published in 1830, entitled *Scènes Populaires* and *Mémoires de Joseph Prudhomme*, are examples. In 1831 he became an actor at the *théâtre de Vaudeville*, where his original humor as an actor made him a great favorite, excelling particularly in the representation of scenes of his own creation, which were introduced in the first play in which he took part, entitled *Famille Improvisée*. His ambition was soon sated with success as an actor, and his pen resumed work on comedies that needed no stage to enhance their effect, and which have become classic among the French. Among them are: *Un Voyage en Hollande*; *Les Bourgeois de Paris*; *Roman chez la Portière*; *Le Bonheur de Vieir aux Champs*; *Peintres et Bourgeois*; and *Les Métamorphoses de Chamoiseau*, several of which are adapted to the stage.

MONNIER, MARC, b. in Italy, 1828; became a resident of Paris, where he was a student of history, literature, and manners; and published esteemed works both in prose and verse. Lately he has been one of the editors of the *Journal des Débats*. Among his historical works are: *La Conquête de la Sicile par les Saracens*, 1847; *Protéantisme en France*, 1854; *L'Italie, est elle la Terre des Morts?* 1859; *Garibaldi, Histoire de la Conquête des Deux Siciles*, 1861. Of works of another character are: *La Vieille Fille*; *La Tante Jeanne*; *Les Amours Permises*. Of comedies and *marionettes* are *Le Roi Babolein*; *Le Curé d'Yvetot*; *La Ligne Droite*; *Mouche du Coche*; and *Aïeux de Figaro*. A volume of his poems was published in Paris in 1871.

MONO, a co. in e. California, between Nevada and the Sierra Nevada mountains; 4,176 sq.m.; pop. '80, 7,499—4,081 of American birth. The surface is irregular, intersected by numerous mountain offshoots and hills, between which are arable valleys. Some of the plain country is adapted to grazing. Much of the county is heavily wooded with spruce and pine. Owen's river flows through the s., and the branches of Walker's river through the north. Gold and silver are found in paying quantities in the n.w. part. Wheat is being cultivated with success, and there are saw and quartz mills. Capital, Bridgeport.

MONOCENTRIS JAPONICUS, a species of fish which is an inhabitant of the Chinese and Japanese seas, for which a family, *monocentridæ*, and a genus *monocentris*, have been created. It belongs to the order *teleostie*, sub-order *acanthopteri*. It has a compressed, somewhat oblong body, with large scales in the form of osseous plates; eyes large and lateral; teeth villiform, both on jaws and palate bones; branchiæ large; dorsal fins two, first one very spiny, having but little connecting membrane; the second dorsal fin opposite the anal, and similar. The ventral fins each have a single strong spine and two or three short rays.

MONOD, ADOLPHE FREDERIC THEODORE, 1802-56; b. Copenhagen. His father, Jean, residing in Paris as pastor of a French Protestant church, the son was educated at the college Bonaparte, Paris, and then studied theology at the university of Geneva, remaining till 1824. In 1825 he visited Italy, and preached to a small Protestant congregation at Naples until 1827. Returning, he was appointed pastor of Lyons, but, his evangelical and earnest preaching being disliked, he was removed. His congregation then met in a private room, and soon in a spacious chapel, and at the end of 30-years the evangelical church of Lyons had 4 pastors, many evangelists, and 8 chapels. He was appointed by the government professor of theology at Montauban, where he remained 11 years. While filling this office he traveled in southern France, preaching and instructing the people, who were attracted by the power of his discourses. Though holding the views of his brother in regard to the divinity of Christ, he remained in the national church, and in 1849 succeeded his brother as pastor at Paris, being appointed by the consistory of Paris, the government confirming the selection. The large oratoire was filled every Sunday, and the small room was used for Bible lessons, many preferring these to his greater sermons. In 1856 he was suddenly stricken down, and his disease pronounced incurable. He was a man of great spiritual power, a sympathizing heart, highly cultivated mind, and lofty imagination. He was an eloquent preacher. His literary works were chiefly sermons. In 1844 he published a volume of sermons of 68 pages, which are considered very valuable. He is the author of *Lucile, ou la Lecture de la Bible*; *La Femme*; *Saint Paul*.

MONOD, FRÉDÉRIC JOËL JEAN GÉRARD, 1794-1863; b. Monnaz, canton de Vaud, Switzerland; educated at Geneva; entered the ministry in 1820, and succeeded his father

as pastor of the national Protestant church of France in Paris. He established in 1824 the *Archives du Christianisme*, the chief organ of the evangelical French Protestants, and continued its editor until his death. After officiating 12 years as pastor of the oratoire, he united with De Gasparin and others in an attempt to restore a rule of faith in the reformed church which would exclude rationalists, by making an acknowledgment of the divinity of Christ essential to membership. Failing in this, they left the national Protestant church in 1849, and organized independent congregations which resulted in the formation of the Free evangelical church of France. Associated with Monod were count de Gasparin, E. de Presseusé, and pastor Fisch. The influence of the Free church has been so great that the majority of the state church are now represented to be evangelical. In 1858 Monod visited the United States to interest the churches here in their new movement. He greatly admired American institutions, and referred to this country as evidence of the advantage of entire separation of church and state. During the war of the rebellion, he ardently espoused the side of the national government, and was one of the originators of the address which was signed by the majority of the Protestant French ministers, declaring that "the triumph of the rebellion would throw back for a century the progress of Christian civilization and of humanity, raise the hopes of the favorers of slavery and the slave trade, and would give a sad blow to the work of evangelical missions." The address produced a marked change of opinion towards the United States not only in France, but also in England. He published a few pamphlets and several sermons, but most of his writings are in the *Archives du Christianisme*.

MONO LAKE, in Mono co., Cal.; 14 m. long. Its waters are very alkaline and bitter. It has no outlet.

MONOMOISE or **MONOMOEZI**, a country in central Africa, on the e. shore of lake Tanganyika. It was known in the 16th and 17th centuries as Monemuge or Munhemuge, though all these names are said to apply properly to the ruler of the country, and not the country itself. The name is little used at present, and the territory is split into a number of small kingdoms. Its former area was estimated at 240,000 sq. miles. Its inhabitants were continually at war, but higher in civilization than most South African tribes. Ivory, copper, cotton, and oil are exported by means of caravans.

MONONA, a co. in w. Iowa, on the Missouri: 730 sq.m.; pop. '80, 9,055—7,868 of American birth. The Little Sioux river flows through it. It is chiefly fertile prairie. Indian corn, wheat, and oats are raised. Co. seat, Onawa.

MONONGALIA, a co. in n. W. Va., next to Pennsylvania; 500 sq.m.; pop. '80, 14,985—317 colored. The surface is irregular, and Laurel hill, a w. offshoot of the Alleghanies, traverses the e. part. The soil is rich, and produces good crops of Indian corn, wheat, oats, and potatoes. The Monongahela and Cheat rivers flow through it. There are large forests, and deposits of bituminous coal. Co. seat, Morgantown.

MONOPTERUS JAVANENSIS, a peculiar species of eel found in the East Indian seas and along the coasts of China and Japan. It has a more elongated body than most eels; teeth small and embraced in a narrow band; branchial apertures meet in a median slit beneath; no caudal or pectoral fins; dorsal and anal fins rather small; branchial arches have rudimentary laminae. It has about 188 vertebrae and is 3 ft. or more in length.

MONOTH'ELITES (**MONOTHELISM**, *ante*), persons in the early church who, in the effort to explain the mystery of Christ's person, said that he possessed only one will. Eutyches, about the middle of the 5th c., had taught that Christ had only one nature, his human nature having been *absorbed* by his divine. The impersonal human nature, he said, was assimilated and, in a manner, deified by the personal Logos, so that his body was not of the same substance as those of mankind generally, but was a divine body. All human attributes, also, in his opinion, were transferred to the one subject, so that it must be said, God was born, God suffered, was crucified, and died. The monophysites, in distinction from the Eutychians, held that the two natures were so *united* as to become only one nature. And these were followed by the monothelites, who maintained that Christ, though retaining two natures, had only one will, the human will being merged in the divine. That is, while speaking of two natures, they were in fact Eutychians so far as respected the faculty of the will. This theory was made prominent in the effort of the emperor Heraclius to compose the disputes in the church, and especially to bring back the Eutychians and monophysites, the latter of whom were very powerful. Their leader, Cyrus, patriarch of Alexandria, called a synod, 633 A.D., which approved the monothelite statement, and with good effects at least for a time. Many Eutychians in Armenia, Egypt, and other remote districts, were brought back to the church. The decision, however, was opposed by Sophronius, a monk of Palestine, who, on being made patriarch of Jerusalem, did not hesitate to resist both the open approval of it by the patriarch of Constantinople and the tacit consent yielded to it by the pope of Rome. He soon summoned a council, which condemned the doctrine of the one will as being a part of the Eutychian heresy. This decision, in its turn, was condemned by the emperor Heraclius, who issued a decree forbidding all controversy on the subject; but his influence in upholding monothelism was soon arrested by his death; and, after much controversy and mutual condemnation, the first synod of the Lateran, 649, adopted the doctrine of the two wills and two energies. The final condemnation of monothelism was

pronounced at the 6th general council, Constantinople, 680, where it was declared that there are in Christ two natural wills and two natural operations, without division, conversion, or change; with nothing like antagonism or like confusion; but at the same time that the human will could not come into collision with his divine will, but is in all things subject to it.

MONRO, ALEXANDER, *tertius*, anatomical professor, son of Dr. Alexander Monro, *secundus*, born at Edinburgh, Nov. 5, 1773, was educated at the high school and university of that city, and studied medicine, anatomy, and surgery in London. In 1798 he became joint professor of anatomy with his father, and the following year he took his degree of M.D. In 1803 he instituted the class of practical anatomy in the university of Edinburgh, and in 1808 he succeeded his father in the anatomical chair. In 1828 he was president of the royal college of physicians of Edinburgh, and he contributed many valuable papers to its *Transactions*. He was also a fellow of the royal society of Edinburgh. He retired from his chair in 1847, with the title of emeritus professor of anatomy; and thus ended the connection between the college of Edinburgh and the family of Monro, which lasted for more than a century and a quarter. He died at his seat of Craiglockart, near Edinburgh, Mar. 10, 1859. He was the author of *Observations on Crural Hernia*, plates (Edin. 1803); *The Morbid Anatomy of the Gullet, Stomach, and Intestines*, plates (Edin. 1811); *Outlines of the Anatomy of the Human Body* (4 vols. 8vo, Edin. 1813); and other professional works.

MONROE, a co. in s.w. Alabama, n.e. of the Alabama river; 980 sq.m.; pop. '70, 14,214—14,180 of American birth. The surface is diversified, and much of it covered with a growth of pine. The soil is fertile, and well adapted to the raising of Indian corn, which is the principal crop. Next in importance are sweet potatoes and cotton. Considerable quantities of molasses are manufactured from the cane. It is drained by the Alabama river and Limestone creek. Co. seat, Monroeville.

MONROE, a co. in e. Arkansas, n.e. of the White river, 1040 sq.m.; pop. '80, 9,570—5,160 colored. The surface is even, and a large portion of it is cypress swamps. There are extensive forests of hickory, sassafras, and white oak. The soil is fertile, and produces good crops of Indian corn and cotton. Co. seat, Clarendon.

MONROE, a co. in s. Florida, bounded on the n. by the Caloosabatchie river, on the e. by lake Okeechobee, on the s.w. by Ponce de Leon bay, and on the w. by the gulf of Mexico; 3,060 sq.m.; pop. '80, 10,867—3,208 colored. The surface is flat, with a large area of marsh; a part of the everglades lies in it. Most of the Florida Keys and of the Thousand Isles are within the limits of this county, which is the w. portion of the s. end of the Florida peninsula. Large areas are used for pasturage. Little is under cultivation, and the chief produce is sweet potatoes. Co. seat, Key West.

MONROE, a co. in central Georgia, w. of the Ocmulgee, drained by Tobesofka, Towaliga, and Echeconnee creeks, on the Central railroad of Georgia; 370 sq.m.; pop. '80, 18,808—12,112 colored. The surface is uneven and hilly, and the soil generally fertile. Granite, gold, and iron are found. The principal productions are cotton, Indian corn, wheat, oats, and sweet potatoes. Co. seat, Forsyth.

MONROE, a co. in s.w. Illinois, between the Mississippi and Kaskaskia rivers; 360 sq.m.; pop. '80, 13,682. The surface is somewhat uneven. The soil is fertile, and produces large quantities of wheat, Indian corn, oats, and potatoes. There are a number of flour-mills and harness manufactories. The Cairo and St. Louis railroad passes through it. Co. seat, Waterloo.

MONROE, a co. in s.w. Indiana; area, 420 sq.m.; pop. '80, 15,875—of American birth, 15,577. It is drained by the White river and its tributaries. The surface is uneven, soil fertile, and the principal crops grown are corn, wheat, oats, potatoes, and tobacco. There are a number of saw and flour mills, woolen mills, currying shops, and tanneries. It is on the line of the Louisville, New Albany, and Chicago railroads. Co. seat, Bloomington.

MONROE, a co. in s. Iowa; 430 sq.m.; pop. '80, 13,719—of American birth, 12,227. It is well watered by a number of small streams and creeks. It is largely prairie, with an undulating surface, uneven in some portions. The soil is fertile, and grows large crops of Indian corn. Next in amount are the productions of wheat, oats, butter, hay, and potatoes. There are some saw-mills, flour-mills, and a few smaller manufacturing establishments. It is intersected by the Burlington and Missouri, and Iowa Central railroads. Co. seat, Albia.

MONROE, a co. in s. Kentucky, adjoining Tennessee; 300 sq.m.; pop. '80, 10,742—colored, 660. The surface is uneven. The soil is fertile, and grows, besides tobacco and corn, which are the chief productions, oats, potatoes, and sweet potatoes in considerable quantities. It is watered by the Cumberland river and the source of the Big Barren. Co. seat, Tompkinsville.

MONROE, a co. in s.e. Michigan, along the shores of lake Erie, adjoining Ohio; 540 sq.m.; pop. '80, 33,623. The Huron river flows along its n.e. side. It is watered by the Raisin river, which passes through a fertile valley, with fine scenery. The most important productions are Indian corn, wheat, oats, wool, potatoes, butter, and hay. There

are a number of saw-mills, carriage manufactories, and tanneries. There are also flour-mills, brick-yards and manufactories of agricultural tools. The Flint and Pere Marquette, the Lake Shore and Michigan Southern, and the Canada Southern railroads pass through it. Co. seat, Monroe.

MONROE, a co. in n.e. Mississippi, having the state line of Alabama for its e. boundary, and a branch of the Tombigbee river for its s.w., is drained by that river, intersecting it centrally, and traversed by the Mobile and Ohio railroad; 800 sq.m.; pop. '80, 28,553—28,419 of American birth, 18,004 colored. Its surface is generally level, in some localities low and swampy, in others covered with dense forests of hard wood, interspersed with groves of magnolia, tulip-tree, beech, and elm. Its soil is a calcareous loam, very fertile, and adapted to the raising of live-stock, and the production of wheat, corn, sweet potatoes, cotton, and dairy products. Co. seat, Aberdeen.

MONROE, a co. in n.e. Missouri; 744 sq.m.; pop. '70, 17,149. It is well watered by the Salt river and its tributaries. It is principally a fertile, rolling prairie. Great crops of corn are grown, and wheat, oats, butter, hay, tobacco, and wool, are raised in quantities. Rich veins of coal, limestone, and freestone are found. Agriculture is the principal business, and manufacturing has not been much developed. It is on the line of the Missouri division of the Missouri, Kansas and Texas railroad. Co. seat, Paris.

MONROE, a co. in w. New York, having lake Ontario for its n. boundary; 682 sq.m.; pop. '80, 142,660. It is drained by the Genesee river, the Irondequoit, the Honeoye, and other small streams. It is intersected centrally by the Erie canal, crossing the Genesee river, and the Genesee Valley canal, by the New York Central and Hudson River railroad, the Rome, Watertown and Ogdensburg, and the Rochester division of the New York, Lake Erie and Western railroad. Its surface is generally level, sloping towards the water, and well wooded. Its orchard products are very considerable, and fruit and ornamental trees, apples, and wool are among its exports. Iron is mined; other mineral deposits are Medina sandstone, Silurian limestone, gypsum, and water-lime. Its domestic trade is important and its commercial facilities render its foreign commerce of great value. Its unlimited water power is utilized by factories, and among its vast industries are the manufacture of ready-made clothing, boots and shoes, cigars, hats and caps, steam-engines, bank locks, machinery, etc. At its county seat are the Leighton iron bridge works; and its flour mills grind millions of bushels of wheat annually. Co. seat, Rochester.

MONROE, a co. in s.e. Ohio, on the Ohio river; 420 sq.m.; pop. '80, 26,497—24,500 of American birth. The surface is uneven, heavily wooded, and contains deposits of coal. Iron is found in some parts. The soil is fertile, and the chief staples are tobacco and corn. The productions next in importance are oats, wheat, potatoes, hay, butter, and wool. Large quantities of cheese are manufactured. There are saw and planing mills, tanneries and currying shops, furniture factories and flour-mills. Co. seat, Woodsfield.

MONROE, a co. in e. Pennsylvania, having the Delaware river for its s.e. boundary, separating it from New Jersey, a range of the Blue mountains for its s., and the Lehigh river for its n.w. boundary; about 680 sq.m.; pop. '80, 20,175—19,320 of American birth, 155 colored. It is intersected by the Delaware, Lackawanna and Western railroad. Its fertile valleys are interspersed with elevations in some localities, and diversified by forests of hickory, walnut, etc. It is drained by Brodhead's and Tobyhanna creeks; limestone and slate are quarried. It contains the charming summer resort of Delaware Water Gap, where the Delaware river breaks through the Blue ridge through a gorge two or three miles long, whose sides rise 1400 feet above the level of the water. The surrounding country is noted for its picturesque scenery. Its soil, on a limestone foundation, produces all the vegetable, orchard, and dairy products common to the middle states. Lumber is one of its chief commodities, and leather and flour are manufactured. Among its manufactories are woolen-mills and tanneries. Co. seat, Stroudsburg.

MONROE, a co. in s.e. Tennessee, next to North Carolina; 550 sq.m.; pop. '80, 14,283—1291 colored. The surface is uneven and hilly, and the soil generally fertile in the valleys. Portions are heavily wooded. Wheat, oats, pork, and Indian corn are the chief products. It is on the East Tennessee, Virginia and Georgia railroad. Co. seat, Madisonville.

MONROE, a co. in s.e. West Virginia, having for its s. and s.e. boundary a ridge of the Alleghany mountains, the Kanawha river crossing its extreme n. section and a portion of its s.w.; 500 sq.m.; pop. '80, 11,501—11,446 of American birth, 1131 colored. It is intersected by the Chesapeake and Ohio railroad. Its surface, generally mountainous, is drained by the Greenbrier river, and the New river forming part of its w. boundary. It is largely covered with forests of hardwood diversified by groves of sugar-maple. Its soil is very fertile, producing grain, tobacco, wool, and the products of the dairy, and is highly esteemed for its good pasturage and facilities for stock-raising. Red sulphur and white sulphur springs are found in the s. section. Co. seat, Union.

MONROE, a co. in s.w. Wisconsin; 900 sq.m.; pop. 21,606. The surface is rolling and irregular. The soil is fertile, producing, in large quantities, corn, wheat, oats, potatoes, and hay. Large amounts of wool and butter are made. Many tons of hops

are annually gathered. There are a number of saw and flour mills, and many miscellaneous manufactories, as cooper, machine, and carriage shops, and paper and clothing mills. The La Crosse, Kickapoo, Lemonweir, and other rivers pass through it. It is on the line of the Chicago, Milwaukee and St. Paul, and of the West Wisconsin railroads. Co. seat, Sparta.

MONROE (*ante*). This pleasant old French town in Michigan, though left behind by the cities of Toledo, south, and Detroit, north, remains the seat of a young ladies' seminary, of several prosperous manufacturing industries, and extensive nurseries, and makes moderate shipments of produce, sand for glass-making, etc. It was settled under the name of Frenchtown, by French from Detroit, in 1784. The battle of the river Raisin, between the English and their Indian allies and an American force, occurred near Monroe in 1813, resulting in the massacre of several hundred American prisoners.

MONROE DOCTRINE, a scheme of public policy, named after its author, James Monroe, fifth president of the United States of America, by whom it was enunciated in his message to congress, Dec. 2, 1823. Mr. Monroe set forth in his message that "as a principle, the American continents, by the free and independent position which they have assumed and maintained, are henceforth not to be considered as subjects for future colonization by any European power;" and that any attempt on the part of the European powers to "extend their system to any portion of this hemisphere" would be regarded by the United States as "dangerous to our peace and safety," and would be opposed accordingly.

MONSEIGNEUR, a French title, compounded of the words *mon* and *seigneur*, meaning my lord, applicable to royal or imperial princes, cardinals, archbishops and bishops of France, and accorded in courtesy to the high officers of government, and persons generally of high rank. Its plural is *messeigneurs*. Abbreviations *mgr.*, *mgrs.* The title was not applied to bishops until about the close of the 17th c., when they acquired it by concerted action in addressing each other in that way. Their title previously was simply *monsieur*. A law of the French convention in 1801 interdicted the use of the title to bishops and archbishops, and required them to confine their signature titles, and their addresses to each other to the words *citoyen* or *monsieur*. In the language of French thieves *monseigneur* is applied to a tool used to break locks.

MONSIEUR, plural *messieurs*, a French title formerly addressed to persons of medium rank, and corresponding to sir or my sir in English; now universally employed in French by all gentlemen in addressing each other. It is also used as a prefix to titles of rank, as *monsieur le prince*, *messieurs les députés*, *monsieur le préfet*; and as a form of respect in mentioning a third person without regard to rank, as *monsieur votre frère*, *monsieur votre voisin*, etc. In the middle ages the title was given to saints, as *monsieur saint Pierre*, *monsieur saint Jean*, etc., and also in the same manner applied as a prefix to the names of popes and of members of the royal family when alluded to in the third person. It was the special title of the oldest brother of the French king, the duke of Orleans, who was specifically indicated when one spoke simply of *monsieur*. The title is dropped before the names of persons of great fame, as belittling when speaking of them, as Lamartine, Carnot, etc.

MONSON, a t. in Hampden co., Mass., 15 m. e. of Springfield; pop. '80, 3,578. It contains manufactories of hats and bonnets, and woolen goods, a national bank, 3 churches, an academy, and a state school for the children of alien paupers. The Boston and Albany, and New London Northern railroads pass through it. The Monson academy has long had a high repute, attracting students in preparation for college from distant places; and noted for its moral and religious influence. Many men of eminence have gained here the foundation of their education. It is one of the schools chosen for the education of the youth sent to this country for study, and supported here, by the Chinese government.

MONSTER. See **MONSTROSITY**, in anatomy.

MONSTRELET, **ENGUERRAND DE**, 1390-1453; a chronicler following immediately after Froissart, and with less charm of narration; the first clear, reasoning, and exact collector of the facts of the history of his time. In 1430 he had a civil and military function in Compeigne, and was afterwards present at the interview between Jean d'Arc and the duke of Burgogne. His chronicles of the 15th c. were republished in 7 vols., Paris, 1857.

MONTAGU, **BASIL**, 1770-1851; b. London. He was the son of John Montagu, fourth earl of Sandwich, and of Miss Ray, who was shot in 1779 in the piazza of Covent garden by the rev. James Hackman in a fit of jealous frenzy. He received his early education at the Charter House school in London, and took the degree of M.A. at Cambridge in 1790, distinguishing himself by his love of literature; entered Gray's Inn, and was admitted to the bar in 1798. While in London he became intimate with Coleridge, and adopting the opinions of Godwin, determined to abandon the law, but was dissuaded by sir James Mackintosh. He was a copious and able writer. The most important of his works is a *Digest of the Bankrupt Laws*, in 4 vols., for which he obtained in 1806 the office of commissioner of bankruptcy. This became a standard work and passed through many editions. He was distinguished for his efforts to mitigate the severity of

the penal code. He wrote several pamphlets on capital punishment, and with Wilberforce, Romilly, and others succeeded in obtaining the abolition of hanging for forgery. He edited Bacon's works in 16 vols. He published 40 vols., and left 100 more in manuscript.

MONTAGU, EDWARD WORTLEY, 1713-76; b. Wharfedale, Yorkshire, Eng., only son of Edward Wortley and lady Mary. When very young he ran away from Westminster school repeatedly, gave himself up to the lowest vices, and hired himself out as a cabin boy in a ship sailing for Spain, where he was discovered by the British consul at Cadiz, and restored to his family. He was then committed to the charge of a private tutor who obtained for him an appointment to a public office. He was then sent to travel on the continent under the care of the tutor, and while abroad he published his first work, *Reflections on the Rise and Fall of Ancient Republics*. While at Paris he became involved in an altercation with a Jew which led to a criminal prosecution. On his return to England he married, while still under age, a woman much older than himself, and in a few weeks deserted her. Notwithstanding his profligacy he obtained a seat in parliament in 1847, and was re-elected, until being involved in debt by his extravagance he was forced to resign. He again went abroad, never returning to England. He proceeded first to Italy, became a convert to popery, and then went to Egypt where he turned Mohammedan. He spent the remainder of his life in the Levant, having been in the mean time disinherited by his parents, but was on his way back to England when he died at Padua. Besides the tract before mentioned he wrote another, entitled *An Examination into the Cause of Earthquakes*, and contributed some papers to the *Philosophical Transactions*. His tract on *Ancient Republics* was claimed as the production of Mr. Foster, his tutor.

MONTAGU, ELIZABETH ROBINSON, 1720-1800; b. York, Eng.; was married in 1742 to Edward Montagu, grandson of the first earl of Sandwich, who on his death left her a large fortune. With abundance of wealth, and possessing literary talent, she became a leader in London society, and her residence was the favorite resort of literary persons. For several years she gave annual dinners on May-day to the chimney-sweeps of London. She wrote three *Dialogues of the Dead*, published in lord Lyttleton's work by that name, and an *Essay on the Writings and Genius of Shakespeare, compared with the Greek and French Dramatic Poets*. She is well known by her correspondence in 4 vols.

MONTAGUE, a co. in n. Texas, bounded on the n. by the Red river, which separates it from the Indian territory, and drained by the Denton fork of Trinity river, and by Clear creek; 850 sq.m.; pop. '80, 11,257-11,162 of American birth. The soil in the vicinity of Red river is good. Cattle raising is the chief business. Co. seat, Montague.

MONTAGUE, CHARLES. See HALIFAX, EARL OF, *ante*.

MONTAJONE, a t. in n. Italy, near the sea, about 25 m. s.w of Florence, having mineral springs celebrated for their medicinal properties; pop. 10,556. It is in a province of the same name.

MONTALEMBERT, MARC RENÉ, Marquis de, 1714-1800; b. and educated in Angoulême; entered the army at the age of 18, and while engaged in military service made a specialty of scientific study, and in 1747 became a member of the academy of sciences of Paris. In 1751 he constructed foundries at Rouelle for cannon of larger caliber than previously used, which were employed in the seven years' war (1756-63), in which he was general in the service of Sweden and Russia. He aided Todleben in the capture of Berlin in 1760, and the following year had finished a great work on fortifications, which he was about to publish, when the French minister, Choiseul, interdicted the publication in order to have it for the sole benefit of France. He became the chief military engineer of France, and his systems proved superior to all others. In 1779 he constructed a fort of wood on the *Isle d'Aix*, which was found to have wonderful resistance in proportion to its cost. At the beginning of the French revolution Mirabeau undertook to make him inspector-general of the fortifications of France, but his rank was a bar-sinister. In 1792 the French war office, under Carnot, purchased his collection of models, and he became the trusted adviser of that minister. He lived to see his inventions and theories, following in general the system of Vauban, adopted in France and throughout Europe, after many years of almost contemptuous opposition. His main work is *Fortification perpendiculaire*, 11 quarto vols., 1776-78; re-edited and published in 1793 under the title of *L'Art défensif supérieur à l'art à l'offensif*. He was author also of many memoirs on various subjects, of poems, and of comedies.

MONTALVAN, JUAN PEREZ DE, 1602-38, b. Madrid. He received instruction and assistance from the famous dramatic writer Lope de Vega, to whom he became greatly attached, and whom he adopted as his model in almost everything. Like his master, he entered the priesthood, and accepted an office in the inquisition. At the age of 30 he had written 36 dramas, and in 1636 the number had increased to 60. The construction was flimsy and the execution careless. One of his last works was an extravagant panegyric, in 1636, on his friend and instructor. His intense and incessant study had now begun to affect his brain, and he soon fell into a state of imbecility,

which continued till his death. His collected dramatic works appeared in 1638-39, and were reprinted in 1652.

MONTANA (*ante*), a territory of the United States formed from parts of Idaho and Dakota; pop. '89, 39,157—27,642 of American birth, 3,689 colored, 1737 Chinese, and 1750 Indians and half-breeds. Its surface is rough and mountainous, the main range of the Rocky mountains entering the w. portion from the n., and extending 200 m. s.e. in that section; thence changing their direction and trending toward the w. boundary, where they join the Bitter Root mountains. In the e. portion are the Little Rockies, Little Bear, Bear's Paw, Kay-i-you, Gallatin, the Belt range s. of the great falls of the Missouri, the Highwood in the n., and the low-lying Spoonbill, with many detached spurs and smooth-sloping buttes. This mountainous region constitutes about two-fifths of the surface, extending the entire length of the territory from n. to s., and for 175 m. e. of the w. boundary, the general elevation being much less in the n. than in the s. portion. Between these ranges are deep divides; around the spurs wind beautiful rivers; and picturesque cañons separate the buttes. In the s. portion, in the vicinity of the Yellowstone river, the mountains rise 11,000 ft. above the level of the sea, wearing a crown of perpetual snow, and in the n., beyond the Missouri, the mountain tops in early autumn are clothed in the blue of the sky, mingled with the purity of the snow, visible for many miles over level, treeless plains. Away from the strictly mountainous portion there are solitary peaks of basalt, tuff, and other volcanic rock, of material such that though presenting a rocky appearance, or one of great solidity, much of it can easily be cut with a knife. In the crevasses of the mountains, however, may be found green spots bearing pine, cedar and fir trees, and susceptible of cultivation, while the light-brown grass of the plain below, brown by contrast with the vivid green of the moister soil, furnishes nutritious food for the wandering herds marked with the ranchman's brand. A large proportion of its vast territory is taken up by Indian reservations, 24,156,800 acres being held in reserve for them, of which more than 10,000,000 acres are thought to be tillable land, and only 3,769 acres is under cultivation. Immense prairies and bottom-lands, smooth, rich, and green, await the plowman, untilled and uninhabited. The print of the pony's fleet foot is the only mark on the soil, save the traces of a vanished "tepee," or the high stakes supporting the canvas shelf which holds the rattling bones of a dead Indian in his airy sepulcher.

The territory contains the head-waters of the Missouri, the Clarke's fork of the Columbia river, and the Yellowstone, a tributary of the Missouri, giving its name to the celebrated national Yellowstone park, which it irrigates and beautifies. These rivers and their branches permeate the entire territory, furnishing natural highways for the transportation of passengers and freight. Of the branches those of the Missouri are all of more or less interest on account of their association with late Indian troubles. The Big Horn, the Rose Bud, whose valley was the scene of Custer's last battle with the Dakotas under Sitting Bull, the Powder, Tongue, etc., flow into the Yellowstone, and the Marias, Milk, Muscleshell, Big Muddy, Judith, and Poplar rivers flow directly into the Missouri. The Bitter Root river rises in the w., flowing n., sometimes in the latter portion called the Missoula. The Missouri, rising near Gallatin in the s.w., is formed originally of the Jefferson, Madison, and Gallatin rivers, and flows n.e. to Helena, following thence an e. course to Benton and the Dakota line. It is navigable by steamboats from April to September as far as fort Benton, 303 m. from the boundary line of Dakota, and efforts are being made to improve the bed of the stream as far as the falls between fort Benton and Helena. Government appropriations have been made for the building of dikes to keep the water in the channel, and more are confidently expected, as the traffic on the river is assuming weighty proportions. It is a difficult and tedious work, owing to the scarcity of material. The Yellowstone, rising in Yellowstone lake in n.w. Wyoming, is also navigable early in the season, and even so late as August, as far as the buffalo hunting grounds, 300 m. above its mouth. The Little Missouri crosses the s.e. corner, entering the Missouri in Dakota.

In its geological construction the azoic formations prevail in the w., and eastward first the jurassic appears, next the cretaceous, and near the Dakota line the tertiary. Along the base of the mountains are beds of jurassic and carboniferous rocks. Potsdam sandstone and brick-making clay are abundant, and there is some granite. Slate is found in large quantities in the placer-mining districts. In all sections the strata are much broken, and present formations of almost every geologic age. The plains, which at the mouth of the Yellowstone are 2,010 ft. above the level of the sea, rise gradually to 4,091 ft. at the base of the mountains, the elevation of the valleys varying from 3,000 to 5,000 feet. The cretaceous strata in the n. yield coal of the best quality, which is mined in the vicinity of Bannack, Helena, Virginia, Deer Lodge, and Benton, and there are evidences of its presence on the Missouri, Muscleshell, and Yellowstone. All kinds of petrefactions are found near the Missouri, snails, snakes, sea-serpents, buffaloes' bones, wood, etc.

Its most important mineral wealth is in its vast deposits of gold and silver, which are mined in every method from the modern scientific machinery of quartz-crushing and hydraulic mining, to the homely pan of the original "honest miner," with his little retort and crucible, quicksilver and rough sluice-boxes, vexed and worried by drought and flood. Gold was first discovered on a small creek w. of the main divide of the Rocky mountains, in 1852, contiguous to the site of the present town of Deer Lodge. In 1861

the first mine was opened, and in 1863 the first quartz mill was erected. The principal quartz mines are near Argenta, Bannack, and Helena, and the latter place and Virginia are the great mining centers. The Barker silver mines, 60 m. from Fort Benton, have been recently opened, and large quantities of ore were sent down the river to Omaha to be assayed in the autumn of 1880. Iron and coal, lignite, copper, and petroleum are found.

In the e. section there is much controversy as to which is the more susceptible to cultivation, the bench or the bottom lands, experiments having been made by the military and other residents along the rivers; but, subject to certain conditions of season and locality, either level has been found to be productive, furnishing excellent wheat land, and fine crops of turnips and the hardier vegetables are raised with very little labor. Groves of cottonwood, resembling the birch trees of the east, ash, and hickory grow on the banks of the Missouri, furnishing fuel for the steamers, being cut by a solitary woodman, and laid ready in long piles. It also supplies a convenient medium of exchange whereby the proprietor of the wood-yard procures his whisky, canned vegetables, and clothing. Thickets of willows are common, in which the tourist searches, frequently with success, for "diamond willow," the favorite wood for walking-sticks. At the Coal Banks, 35 m. from Fort Benton, a new government freight station, there is an elegant park laid out in serpentine paths, and furnished with rustic seats by the industry of the soldiers in leisure hours. Previous to the severe winter of 1881, the bunch, buffalo, and grama grass were sufficient food for stock throughout the year, and it was not considered necessary to provide shelter, but in that year the snow blocked all the roads for weeks at a time, cutting off all communication between principal points, and the thermometer registered 59° below zero at Fort Benton. Poor cottonwood sold at \$15 per cord, and coal was 1 ct. per lb. In ordinary times a military telegraph gives all the facilities for rapid communication as far n. as Fort Benton. The climate is subject to great variations; in a journey of 150 m. a traveler may start in a linen duster and arrive in a fur coat, and a November sun shines with as much intensity as in July. Hay is made on the river bottom lands and carried into the interior, but little is required, except at the forts, and barns are little needed, the hay being stacked on the open prairie. Untoward circumstances have conspired to cause the failure of crops in certain seasons, but in the w. the Prickly Pear, Gallatin, and Bitter Root valleys, and in the n. the valley of the Teton and Sun River valley present a region unsurpassed for agricultural advantages. In the Bitter Root valley, called the Garden Valley of Montana, splendid apples (which sold at Fort Benton in 1880 for 30 cts. per lb.) and plums are raised, \$20,000 worth of trees being imported annually from New York nurseries. Potatoes are raised weighing 2½ lbs., 9x10 in. in size. This is a pleasant prospect for the country, the n. and e. depending principally on canned vegetables from the states. The valley lying n. and s. of Fort Owen is 3,284 ft. above the level of the sea, and is 80 m. long, varying from 5 to 10 m. in width. The soil is a rich dark loam. In addition to the main stream, many tributaries flow down from the mountains. Cottonwood and pine trees grow to a height, the former of 70 ft. and the latter of 150 feet. The Missoula valley is 15 m. wide for 30 m., is well wooded, and has a moderate climate. Prickly Pear valley, from 5 to 15 m. wide and 20 m. long, with beautiful smooth meadows, is in the vicinity of Helena. The valley of the Teton is from 2 to 6 m. wide, with bordering table-lands 75 ft. above the valley level, and is within easy distance of Fort Benton. Deer Lodge valley is 5,000 ft. above the level of the sea, and is 40 m. long and about 12 m. wide, with a central stream flowing through it, and rivulets running down from the mountains on either side. Sun River valley is from 1 to 3 m. wide. The stream is rather swift, and from the "crossing," on the road from Fort Benton to Helena, the valley is about 5 m. wide for 25 miles. The timber is cottonwood and ash. The Judith basin is 50 m. wide and 80 m. long, and is traversed by the Judith river and 3 tributaries, West Fork, South Fork, and Big Spring creek. In the area between these valleys are extensive cattle ranges, taken up by residents of the towns, and visited semi-annually. The bright-winged grasshopper, gay and harmless, is found skipping about on the plains, resembling the little butterflies of the states. Butter is found to be the most lucrative product of the farm; 150 lbs. a week were made in 1880 by the owner of from 40 to 60 cows. It sold at 50 cts. per lb. Prices for the necessities of life approach nearer to those of the east than they did in Virginia City in 1861, when flour sold for \$100 in gold per sack of 100 lbs. The pay of laborers on ranches is \$35 a month; in the winter \$30. Timber is most abundant in the n.w., particularly along the Flathead and Kootenay rivers.

Aside from the fascination of the gold and silver mines, which draws the prospector thitherward, the natural scenery of the territory attracts the tourist who seeks a new sensation. The Utah Northern railroad is creeping slowly but surely from the Union Pacific into the heart of the mining district, to Dillon and beyond, and millions of dollars' worth of freight lies at the terminus awaiting transportation, while in the season steamboats, some owned by the government and carrying the U. S. mail, others owned by private parties (some of them realizing a profit of \$200,000 in 10 years), crowded with freight and passengers, steam up the Missouri from Bismarck, D. T., to Fort Benton, stopping at the Indian agencies of Poplar Creek, the inhabited point nearest the British Possessions, Wolf Point, Fort Berthold, and Fort Buford, in their sinuous course parting company with steamboats which go up the Yellowstone, the point where the rivers

divide resembling the separation of the Monongahela and Alleghany rivers at Pittsburg. In ascending the river numerous abandoned forts are passed, and trading-posts and Indian encampments. Under the banks, which rise from 300 to 800 ft. above the level of the river, the boat may tie up for the night. The scenery is extraordinary; it is grand rather than charming. It silences, hushes, commands admiration; it is after awhile monotonous, but never trivial. These towering heights, these frowning parapets and stern dividing walls, are scarcely more enduring than the drifting sand-bars in the river's bed. They crumble and form again by the action of the atmosphere, slowly vanishing monuments of distant ages. Above the Yellowstone the river is narrow but the scenery is more varied, forming itself into castles and mediæval architecture. At Fort Benton coaches take the passengers into the mining region. The months of April, May, June, and July are the best to ascend the river; later the water is so low that much of the latter part of the journey must be by coaches. At any point on the river herds of buffaloes may be seen winding around the buttes or crossing the stream in the steamer's path. In June, 1880, between Fort Peck and Paradise valley, it was estimated that 20,000 were seen in one day; on another day 500,000. Deer and antelope seek the river in the morning. The national park, at the head of the Yellowstone, which is partly in this territory, contains geysers, thermal and mineral springs; hot springs are also found s. of the Main Divide. Flathead lake, 30 m. long and 14 m. wide, lies in the n.w. portion, in the region of the Flathead and Bannack Indians. The Flathead river is its outlet. It has dense forests of heavy timber, pine, tamarack, and fir growing to the edge of the lake, except on the extreme n., which is open grassy prairie, with much tillable land.

Wolves are often met on the prairie; grizzly bears, badgers, mink, otter, and marten are found in the forests, and beavers build their cabins on the river banks. The Indians start on the annual hunt, with all their tribe and appurtenances, about the middle of October, and may be seen traveling for long distances over the plains, fording streams and climbing mountains. They tan the skins of buffaloes and trade them for whisky, sugar, flour, tea, and canned vegetables, and strip up the flesh into jerked meat, or chop it into pemmican for winter subsistence. Whitefish, salmon, and trout are plenty in the streams; bulberries, which resemble red currants, grow by the rivers, and wild strawberries grow near Helena, ripening as late as November.

In the larger towns the manufacturing productions are rapidly increasing; the cost of transporting machinery, making the price of manufactured articles higher than that of the same articles imported from the states, has retarded the growth of industries, but flour, meal, lumber, jewelry, tinware, and bricks are largely manufactured, and malt liquors are made. The steam quartz mills, used principally for gold, and steam saw-mills, are a good investment. Bricks and logs are used for building. Freight transportation, trade with the Indians, and that which comes over the Canadian line, are the channels of commercial prosperity. Hardship and peril have accompanied the pioneer in mining, agricultural pursuits, gambling, or legitimate trade, and the transition from the lawlessness which compelled the organization of the "Vigilantes," who administered justice without fear or favor, into a respect for individual rights, uninfluenced by sectional feeling, is slow and painful, but within a few years the most noted resorts of the border ruffian have become peaceful places of abode, and boards of trade have taken the place of gambling-houses.

There are several national banks, 2 having been established at Fort Benton in 1880, and a large number of private banking-houses. South of the Yellowstone is the reservation of the Crow Indians and the new Crow agency; in the w. are the Flatheads and Bannacks; in the n. and e. are the Blackfeet, Pend Oreilles, Gros Ventres, Assiniboins, Piegiens, and Sioux, all of whom are friendly under certain conditions. Education, religious and secular, has as yet made only a beginning, but almost every settlement has a religious society, almost every village a newspaper, and nearly every town 2 or more churches. Missionaries are making great efforts to establish schools at the Indian agencies; they have 2 boarding schools and 4 day schools, and 1 will be opened by the Congregational denomination the present season at Poplar Creek. It is said that there are 142 professional scouts among the Montana Indians, but one of the most widely known and constantly employed, Wild Elk, is a Portuguese. Ministers of the Methodist, Roman Catholic, Episcopal, and Congregational order suffer great deprivation and fatigue in order to establish opportunities for religious instruction, and their efforts seem likely to be well rewarded. The Roman Catholics meet with great encouragement among the Indians, with whose language they make themselves acquainted. The professions are well represented, and find ample field.

The territory has over 90 secular schools. It is organized into districts, and Deer Lodge, Virginia, and Helena have graded schools. Helena has a Roman Catholic convent of high reputation as a seminary for young ladies; there are also a number of private schools in the territory, and many libraries annually receiving large additions. The town of Helena was burned on Jan. 9, 1874, loss \$850,000, but it has outgrown all ill effects of the calamity. Newspapers are published in 9 out of the 12 counties, in 7 county-seats, and in 11 cities, towns, and villages; aggregate circulation over 14,000.

The territorial government meets at Helena biennially, and consists of a governor, secretary of state, district attorney, surveyor general, superintendent of Indian affairs,

and U. S. commissioner and treasurer, all appointed by the U. S. government. The delegate to congress is elected by the people, has a voice in the deliberations of that body but no vote; the county officers are elected by the people. The legislature consists of 2 branches, a council of 12 members, and a house of representatives of 26 members, all elected by the popular vote. The district judge of the U. S. district court and 2 associate justices are appointed by the president of the United States. Its chief town is Helena; other important towns are Virginia City, Deer Lodge City, Fort Benton (commonly called Benton in recent years), Bozeman, Bannack City, Missoula, Diamond City, and Radersburg. The penitentiary is at Deer Lodge. Its counties are Beaver Head, Choteau, Custer, Dawson, Deer Lodge, Gallatin, Jefferson, Lewis and Clarke, Madison, Meagher, Missoula, and a new county, name unknown. It has 12 postal money-order offices, and 23 signal service stations. Capital, Virginia City.

MONTANELLI, GIUSEPPE, 1813-62; b. in Tuscany, and studied law in the university of Pisa, where he afterwards became professor of jurisprudence and commercial law. In the Italian revolution of 1848 he participated, and was for some time an Austrian prisoner. From that time until Tuscany became a part of Italy (1860) Montanelli took a very active share in the tumultuous political movements of the province, though for the greater part of the time compelled to remain outside its boundaries. He organized secret societies, wrote pamphlets and articles for the press, and in every way urged on the cause of Italian unity. He published his memoirs in 1853, wrote a number of lyric poems, and was the author of *Umma* and adapter of an Italian version of *Médée*, both tragedies being performed with Mme. Ristori in the title roles.

MONTANISTS. See **MONTANUS**, *ante*.

MONTANUS, ARIAS. See **ARIAS MONTANUS**, *ante*.

MONTAUK POINT, a promontory at the e. extremity of Long Island, in the state of New York. It is in the township of East Hampton, about 7 m. from Sag Harbor, in Suffolk county, lat. 41° 4' n., long. 71° 51' 54" w. It is a light-house station, with a fixed light (160 ft. above the level of the sea, in a stone light-house), and a fog-horn. It was named for a tribe of Indians which, much reduced in numbers, inhabits the vicinity.

MONTCALM, a co. in s. central Michigan; 720 sq.m.; pop. '80, 33,148-27,500 of American birth. The surface is undulating, and covered with a heavy growth of timber. The pine and the sugar-maple abound. The soil is rich, and produces good crops of Indian corn, wheat, oats, potatoes, and grass. Other staples are wool, butter, and maple sugar. The manufacture of lumber is extensively carried on, and there are many saw-mills. Other manufacturing industries are boots and shoes, flour, sashes and blinds, and carriages. It is drained by the affluents of the Chippewa, Grand, and Muskegon rivers, and is traversed by the Grand Rapids and Indiana, Detroit, Lansing and Northern, and Saginaw Valley and St. Louis railroads. Co. seat, Stanton.

MONTCALM, a co. in s.w. Quebec, Canada, n. of the St. Lawrence river, watered by the North, Du Lièvre, Rouge, Lac Ouareau, and Gatineau rivers; 4,027 sq.m.; pop. 12,742-10,794 of French, 1557 of Irish descent. The surface is diversified and the principal productions are grain, cattle, and lumber. Co. seat, St. Julienne.

MONTCALM DE CANDIAC. See **CANDIAC**, *ante*.

MONTCALM DE SAINT-VÉLAN, **LOUIS JOSEPH**, Marquis de, b. near Nismes, 1712; entered the army at the age of 14, at 18 was a capt., served in Italy and Germany for many years, and was wounded at the battle of Piacenza in 1746. He became a field officer in 1756, and was sent to Canada in May of that year to make head against the English. He captured fort Ontario at Oswego in August of the same year. The next season he forced the capitulation of fort William Henry at the head of lake George, with an English garrison of 2,500 men, capturing 42 guns and a large amount of stores. In 1758 he defended fort (Carillon) Ticonderoga with 3,600 Canadians, against gen. Abercrombie at the head of 15,000 English, which resulted in a bloody repulse of the latter after an attack of determined vigor. Lack of troops, ammunition, and provisions, and the large re-enforcements of the English, obliged Montcalm to retire all his forces the following year to the defense of Quebec, menaced by a powerful army under gen. Wolfe. The struggle for that stronghold began July 31, 1759, by an attack, which was repelled. The siege was then continued for six weeks without any success on the part of the English, when Wolfe conceived a new plan of operations and succeeded in secretly scaling the cliffs above Quebec with his entire army, and on Sept. 13 appeared on the heights of Abraham in the rear of Quebec. Montcalm promptly prepared for battle in the open field, and at 10 o'clock led the attack in person. His troops, however, were not veterans and the English were. The English assumed the offensive. Wolfe fell dead in the moment of victory, and Montcalm was borne from the field mortally wounded. When told he must die he said: "It is well; I shall not live to see the surrender of Quebec." The city was not surrendered till several days after his death. In 1827 governor Dalhousie, of Canada, caused a monument to be erected in Quebec to the joint honor of the two brave generals who fell on the field where France lost and England won the Canadas.

MONT CENIS TUNNEL. See **TUNNEL**, *ante*.

MONTCLAIR, a t. in Essex co., n.e. New Jersey, on the New York and Greenwood Lake railroad, and a branch of the Delaware, Lackawanna and Western; pop. '80, 5,146. It is 5 m. n.w. of Newark, and 13 n.w. of Jersey city. It has various manufacturing interests. It lies on the southern and western slope of Orange mountain, with fine view of New York, Brooklyn, and adjacent cities; has much rural beauty, and has attracted a refined and cultivated population.

MONT DE PIÉTÉ (*ante*). This institution originated with Francisco di Viterbo, a Minorite friar, in the 15th c., in Padua. He preached publicly against usurers, particularly the Jews, who had the most of that business in Europe; and though opposed even by some of the church orders, notably the Franciscans, he succeeded in inducing the pope to issue a bull in his favor, when opposition died out. The monk's plan was that the rich should combine to assist the poor, by lending them money without interest on pledges or pawns. The idea became popular, and the institution spread to Assisi, Mantua, Parma, Naples, and Rome; and soon these establishments gained a foothold in Germany, France, and Russia. They were known under different names: "Lombard houses," "mons pietatis," "mons de piété," "banco di rovere," etc. In Rome, Gregory XIII. established a bank of deposit specially for widows and orphans, whose deposits were guaranteed by a lien on the goods of the bank. Sextus V. added to this permission to deposit goods and articles of any value and of every description. Soon this bank reached a height of wealth and power unexampled in the history of such institutions, and was frequently enabled to loan immense sums to states and sovereigns. In Turin the Jews held the money power, and 30 per cent was a common rate of interest among them. In 1519 a mont de piété was established there and the system of extortionate interest was broken up as a result. But this institution was unable to sustain itself, from the fact of charging no interest, and would have failed but that the *compagnie de St. Paul* came to its rescue with the suggestion of a charge of 2 per cent, on which basis it continued business with success. This establishment continued in existence until near the close of the 18th c., when it succumbed to the political convulsions of the period: it was, however, revived in 1822. The mont of Milan was formed by the union of 36 private establishments, and became one of the largest in Italy. It is now nearly 500 years old. In 1833 the capital of this establishment was 671,000 Austrian livres. Among the earliest monts in Italy was one at Cremona for lending corn at interest; it was called the *mons frumenti pietatis*. The custom of charging interest, which has obtained among monts de piété ever since, was licensed in 1515, when the Lateran council in Rome decided that these banks could lawfully charge a sufficient percentage for the use of their money to cover their expenses. At Rome the charge was about 6½ per cent per annum, but this charge has been greatly increased in most of the Italian cities. When Napoleon entered Italy in 1796 he robbed the mons de piété of many valuable treasures. The establishment of monts de piété in France began in the latter part of the 17th c., the first one being at Marseilles in 1695. One appeared in Paris in 1726 in the reign of Louis XIII, but soon failed. In 1769 Turgot tried to re-establish it, but without success; and it was not until the period of Necker's financial administration that it became firmly fixed as a permanent institution. Five years after the establishment of this mont, there were more than 40,000 watches in its vaults. Next to the Paris mont, those of Lyons and Marseilles are rated most important. A mont de piété was established in Copenhagen, Denmark, in 1688, and flourished in private hands until 1753, when it was purchased by the naval hospital for 6,000 rix bank dollars: about \$3,000. The rate of interest throughout Scandinavia has been from 9 to 12 per cent. The first monte pio in Spain was opened at Madrid in 1703, and in 1773 an attempt was made to place it in the hands of the government, but without success. The capital of the montes of Valencia, Malaga, and Galicia was at first derived from vacant benefices, termed *espolios y vacantes*. The two Russian monts were established in 1772—"to put an end to the devouring cupidity of the usurers, by offering prompt assistance to those who are so unfortunate as to be suddenly thrown into need." The income over expenses derived from these monts has been devoted to the support of the foundling hospitals, always an object of fostering care on the part of the Russian government. The rate of interest was originally 6 per cent, was afterwards doubled, and finally again reduced, this time to the legal rate. It has always been a Russian custom to deposit plate and other valuables with the mont for safe-keeping; and in 1813, when Napoleon marched on Moscow, the amount loaned by the establishment in that city was more than five times the average sum. In 1817 the St. Petersburg mont lost by a defalcation more than \$1,000,000. The mont de piété has never been successfully established in Great Britain; one was opened in the city of Limerick, Ireland, in 1837, and was useful in ameliorating the condition of the poor while it lasted; but it did not become permanent, and the private pawnbroker has always occupied the field in the British Islands. There is no record of any institution of the character of the mont de piété having been established in the United States. The distinction between this institution and the ordinary pawnbroker's shop should always be sharply drawn; the one is a beneficent institution, designed to accommodate the poor in the first instance, and, after payment of expenses, to devote any surplus to the sustenance of some charity or public work; the other is simply a business enterprise, conducted for private profit. See PAWNBROKER, *ante*.

MONTECATINI DI VAL DI NIEVOLE, a t. in Italy, 20 m. e. of Lucca; pop. 6,791. Its mineral springs are much frequented by invalids, and have a high reputation throughout Europe.

MONTEFIORE, Sir MOSES, b. London, 1784; from a wealthy Jewish family of bankers; married, in 1810, a connection of the Rothschilds. In 1829 he visited Palestine, became interested in the Jews in that country, and thereafter devoted himself greatly to their benefit. He also assisted the Jews in Poland; and throughout his life has been earnest in the conduct of plans for the amelioration of the condition of his race. In 1846 he succeeded in influencing the czar Nicholas in their behalf; and in 1863 obtained a firman from the emperor of Morocco which afforded protection to the Jews in his dominions. He endowed a Jewish college at Ramsgate, England, in 1867, in memory of his wife, who had died five years before.

MONTEGUT, ÉMILE, b. at Limoges, 1824, and educated there. He was a student of law when his first step into the literary world was made by an article contributed to the *Révue des Deux Mondes* on the philosophy of Ralph Waldo Emerson. He soon afterwards became one of the editors of the review; his contributions ranging through light literature, foreign *critiques*, and politics, until 1848, when social and political subjects dominated, and were treated with little breadth of view. He soon resumed the study of English and American literature, and afterwards devoted his pen to contemporaneous French writings. From 1862 to 1870 he was associate editor of the *Journal de Paris*, and thereafter again editor of the *Révue des Deux Mondes*. His style is described as clear, trenchant, and of narrow view. He has translated into French Emerson's philosophical essays, with an introduction; Macaulay's history of England, and Shakespeare's works with commentaries and notes; and is author of a considerable number of original works.

MONTELEÓNE DI CALÁBRIA, a t. in Calabria, 15 m. n.e. of Nicotera; pop. 11,840. It is situated on a high hill, commanded by a castle; the streets are irregular, and the houses mostly of wood. There is a college, and 4 churches, which contain some good paintings. Silk is manufactured to some extent, and there is some trade, but the principal occupation of the inhabitants is tunny-fishing. The t. was founded in the 13th c., and stands near the site of the ancient Vibonium or Hippo.

MONTELÉPRE, a t. in Sicily, 13 m. w. of Palermo. Pop. 5,706. It contains a fine feudal castle, and many rare Phœnician and other ancient coins are found near it.

MONTEREY, a co. in w. California, between the coast range of mountains on the e. and the Pacific ocean on the w., drained by the Salinas, Carmel, and Benito rivers, and crossed by the Southern Pacific railroad; 4,536 sq.m. in 1874; pop. '80, 11,302—8,637 of American birth. The surface is intersected by several mountain ranges, and divided into the three great valleys of the Carmel, Benito, and Salinas. It is sparsely wooded except in the w.; along the coast fruit raising and cattle raising are extensively pursued. The great staples are wheat, barley, and wool. Next in importance are cheese, butter, and peas and beans. San Benito county was set off from the e. part of this county in 1870. Co. seat, Salinas.

MONTEREY, a village in Monterey co., Cal., 84 m. s.e. of San Francisco, on the Monterey and Salinas Valley railroad. Pop. '75, 1112. It has a good harbor, and a line of steamers plies between it and San Francisco. It was the capital of the Mexican province of California, and is now the co. seat of Monterey county. It gives name to a Roman Catholic diocese.

MONTEREY, BATTLE OF, occurred in the beginning of the war between the United States and Mexico, and is so named from the Mexican city before which it took place. General Zachary Taylor, who had occupied Matamoras on May 18, 1846, and had there been re-enforced, marched southward along the main highway into the interior, and sat down before Monterey, the key of the northern provinces of Mexico, on Sept. 9, with about 6,500 men. The city was strongly fortified, and garrisoned by about 10,000 Mexicans under the command of gen. Ampudia. The bishop's palace, standing on an eminence w. of the town, had also been fortified, and the position was esteemed difficult of capture, if not impregnable, to so small a force as was comprised in gen. Taylor's army. The attack was opened on the part of the Americans on Sept. 21, and on the following morning a sharp assault was made on the bishop's palace by general Worth's command. That position being taken, after a stout resistance, the city was forced, and a fierce running fight ensued, the Mexicans resisting stubbornly, as the Americans drove them from square to square, to the center of the city. The battle lasted two days, but on the 24th, gen. Ampudia surrendered the city and garrison. This being the first success of the American arms, and being achieved under peculiar disadvantages of relative position and number of men, greatly encouraged the United States soldiers, and stimulated them to renewed daring, while it was viewed by the American people as auspicious of a successful conclusion to the war.

MONTE SAN GIOVANNI CAMPANA, a t. in Italy, in the province of Rome, s.e. of Frosinone; pop. 5,988. It occupies a commanding situation on a hill, and contains many well preserved mediæval edifices. It was once a fief belonging to the house of Aquinas, and the prison of St. Thomas is still pointed out to visitors.

MONTESINOS, FERNANDO, about 1600-52; b. Spain; went to Peru while a youth, and eventually became a member of the supreme administrative council at Lima. While employed in this capacity he studied the history and archæology of the country, and wrote *Memories Antiquas Historiales del Peru*, which was translated into French in 1849 by Ternaux-Compans. Prescott, the historian, speaks of him as a writer "who shared largely in the credulity and love of the marvelous which belong to an earlier and less enlightened age."

MONTESPAN, FRANÇOISE ATHÉNAÏS DE ROCHECHOUART DE MORTIMAST, Marquise de, 1641-1707; second daughter of the first duke of Rochechouart. She received a good education at a convent, and appeared in society first under the name of Mlle. de Tonnay-Charente, the name of the château where she was born. Beautiful, witty, and fascinating in conversation, she was soon chosen one of the ladies in waiting of the court of Versailles, where she became a companion of Mlle. de Vallière, who occupied the same position, and was mistress before her of Louis XIV. She married the Marquis de Montespan in 1663, by whom she had a son. It was the queen who was first so fascinated by the charm of her manner that she called the Marquise to be her companion. In 1668, when her age was 27, the monarch openly recognized both her and Mlle. de Vallière as mistresses, and his queen seemed not the less fond of them. Montespan, who was by far the most powerful and ambitious of the two, maintained for ten years a strange control in state affairs, and retained the joint affections of king and queen; often appearing on state occasions in the carriage with the latter. She was admitted by all to be the most beautiful lady of the court. An abundance of fair blonde hair, expressive blue eyes, dark eyebrows, a complexion of exquisite delicacy, a form full and graceful, and "an air that lighted the spot where she appeared," was the inventory of her personal attractions. Her humors as she acquired power became violent and changeable, and her influence declined. During the ninth year of her *liaison*, Mme. de Maintenon, who was in the service of Montespan as governess of her son, and whose more gentle temper pleased the king, began to supplant her, so that in 1679 the king no longer was under her influence. She retained her place at court till 1691. In 1700 she met the king for the last time at court, and soon afterward followed the fashion of the time and became a religious devotee; but not until she had written a tender letter to her husband, begging him to allow her to return to him, and had been refused. By the king she had two sons, the duc de Maine and the comte de Vexin; three daughters, who lived to marry men of title; and two that died infants.

MONTEZ, LOLA. See LOLA MONTEZ.

MONTFAUÇON, BERNARD DE, 1655-1741; b. Languedoc, of noble family. Educated for a military life, but ill suited to it, he joined the Benedictine order in 1676, studied till 1687, and was then called to Paris, where his profound knowledge of Hebrew and Chaldaic brought him an appointment to study the libraries of France and Italy in the interest of church history. In Italy he found trouble with the Jesuits, and asked his own recall, on the ground that it was useless "to follow up a dogmatic controversy with such great liars as the Jesuits." His numerous works are mostly in Latin.

MONTGOMERY, a co. in s.e. Alabama, intersected by the Tallapoosa river, bounded n.w. by the Coosa and Alabama, and drained by many creeks; three railroads pass through it the Western, Mobile and Montgomery, and Montgomery and Eufaula; 900 sq. m.; pop. '80, 53,392-33,948 colored. The surface is rolling or even, and very fertile; Indian corn, cotton, and sweet potatoes are the staples; of cotton the annual product is over 25,000 bales, and it is the largest cotton producing county in the state. The co. seat, Montgomery, is also the capital of the state.

MONTGOMERY, a co. in w. central Arkansas, drained by Ouachita river, Caddo creek, and their many branches; 1140 sq. m.; pop. '80, 5,729-258 colored. The surface is rugged and mountainous; the main ridge is called Crystal mountains, and there are found quantities of rock crystals. The soil is not very fertile; tobacco, wheat, Indian corn, and cotton are the staples. The forests are very extensive; lead and limestone are found in considerable amounts. Co. seat, Montgomery.

MONTGOMERY, a co. in s.e. central Georgia, intersected by the Oconee river, and bounded n.e., s., and s.w. by the Pendleton, Altamaha, and Ocmulgee rivers; 624 sq. m.; pop. '80, 5,381-1871 colored. The surface is level and mostly covered with forests; soil light and sandy; chief products: cotton, wool, sweet potatoes, oats, and Indian corn. Co. seat, Mount Ida, near Montgomery.

MONTGOMERY, a co. in s.w. central Illinois, drained by Shoal creek and its branches; intersected by the Decatur and St. Louis, and Indianapolis and St. Louis railroads; about 700 sq. m.; pop. '80, 28,086-25,438 of American birth. The surface is partly woodland abounding in oak, hickory, etc., and partly prairie; the soil is very fertile and all the cereals are raised in large quantities; bituminous coal is found. Co. seat, Hillsborough.

MONTGOMERY, a co. in w. central Indiana; drained by Sugar creek, a branch of Wabash river, and two or three other creeks; intersected by several railroads having their terminus at Crawfordsville; among which are the Louisville, New Albany and Chicago, and the Indiana, Bloomington and Western; about 500 sq. m.; pop. '80, 27,316-26,537 of American birth. The surface is level or moderately hilly, and is fairly fer-

tile; the staples are wheat, oats, Indian corn, hay, and pork. There is much woodland, the sugar maple abounding. Co. seat, Crawfordville.

MONTGOMERY, a co. in s.w. Iowa, drained by the sources of the Nodaway and Nishnabotona rivers; intersected by the Burlington and Missouri railroad, and by a branch of the St. Joseph and Council Bluffs; 432 sq.m.; pop. '80, 15,895—13,448 of American birth. Surface rolling and fertile; staples: wheat, Indian corn, hay, and pork. Co. seat, Red Oak.

MONTGOMERY, a co. in s.e. Kansas, drained by the Elk, Fall, and Verdigris rivers; intersected by the Leavenworth, Lawrence and Galveston railroad; 576 sq.m.; pop. '80, 18,217—17,324 of American birth; the number having more than doubled since the census of '70. The surface is mostly prairie, but there is some woodland; wheat, oats, and hay are staples; cattle breeding is extensively carried on. Co. seat, Independence.

MONTGOMERY, a co. in n.e. central Kentucky, drained by branches of Licking river, and intersected by the Lexington and Big Sandy railroad; 185 sq.m.; pop. '80, 10,567—3,566 colored. The surface is broken and hilly, and the soil fairly fertile; wheat, oats, potatoes, hay, butter, and pork are the chief products. Co. seat, Mount Sterling.

MONTGOMERY, a co. in w. Maryland, having the state line of Virginia for its s.w. and s. boundary, the District of Columbia for its s., the Potomac river on the s. and w., and the Patuxent river on the n.e.; 500 sq.m.; pop. '80, 24,759—24,390 of American birth, 9,151 colored. It is drained by Seneca and Rock creeks. It is intersected by the metropolitan branch of the Baltimore and Ohio railroad, and the Chesapeake and Ohio canal is on the s.w. border, following the course of the Potomac. Its surface is hilly; it has forests of pine and hardwood timber, and quarries of stone used for building purposes; other mineral products are gneiss and serpentine. Its soil is fertile along the river banks, producing wheat, rye, corn, oats, potatoes, and dairy products. Live stock is raised to some extent. Co. seat, Rockville.

MONTGOMERY, a co. in n. central Mississippi, drained by the Big Black river, and intersected by the New Orleans, St. Louis and Chicago railroad; about 450 sq.m.; pop. '80, 13,348—6,677 colored. The county was set off from Choctaw and Carroll counties in 1872. The surface is level, and there are large forests, mostly of oak, cypress, and magnolia trees. Cotton is raised in large quantities. Co. seat, Winona.

MONTGOMERY, a co. in e. central Missouri, drained by the Gniivre and Lautre rivers, branches of the Missouri, which bounds it on the s.; intersected by the St. Louis, Kansas City and Northern railroad; about 500 sq.m.; pop. '80, 16,251—15,305 of American birth. The surface is very hilly and for the most part covered by extensive forests. Wheat, corn, oats, and tobacco are raised; limestone, iron, and bituminous coal are found. Co. seat, Danville.

MONTGOMERY, a co. in the eastern part of central New York, on the Erie canal and the New York Central railroad; about 356 sq.m.; pop. '70, 34,457. Most of its land is fertile, producing wheat, Indian corn, and oats. The chief industries are the manufacture of agricultural implements. Co. seat, Fonda.

MONTGOMERY, a co. in s. central North Carolina, drained by the branches of the Yadkin river, which forms its w. boundary, and intersected by the Uharee river and Simmon's Fork; 540 sq.m.; pop. '70, 7,487—7,486 of American birth. The surface is hilly, and mostly covered with pine forests. The bottom land about the creeks is fertile, and produces Indian corn, wheat, oats, and grass. Gold is found, but not in large quantities. Chief town, Troy.

MONTGOMERY, a co. in s.w. Ohio, drained by the Miami river, several of its branches, and Mad river; it is traversed by nine lines of railroad, terminating at Dayton, of which the most important are the Sandusky, Dayton, Hamilton, and Cincinnati; Dayton and Western; Atlantic and Great Western; and Dayton and Xenia; 450 sq.m.; pop. '80, 78,545—66,248 of American birth. The surface is mostly hilly but not rugged, and is covered in part by forests of hard wood; the soil is extremely fertile, producing wheat, Indian corn, oats, hay, and tobacco; of the last, the annual yield is from three and a half to four million pounds. Limestone of several kinds is found, and the Niagara, or bluish variety, is extensively used for building in Cincinnati and elsewhere. The Miami canal extends from Dayton to Cincinnati, and furnishes abundant water power. The principal manufacturing interests are at the county-seat, Dayton (q.v.).

MONTGOMERY, a co. in s.e. Penn., on the Philadelphia and Reading railroad, and the Schuylkill river; 460 sq.m.; pop. '70, 81,612. Its principal products are wheat, rye, and Indian corn; its industries, the manufacture of agricultural implements, carriages, and woolen goods. Co. seat, Norristown.

MONTGOMERY, a co. in n. central Tennessee, adjoining Kentucky; drained by the Red river and the Cumberland, the latter a navigable stream; intersected by the Louisville and Great Southern railroad; about 500 sq.m.; pop. '80, 28,461—13,620 colored. The surface is rolling and hilly, in great part covered by forests of oak, beech, gum, hickory, etc.; the soil is very good, producing in large quantities wheat, oats, corn,

sweet potatoes, and tobacco; the annual yield of the last is about 5,000,000 lbs., more than is raised in any other county of the state. Limestone and iron are mined. There are several towns, Clarksville being the county seat.

MONTGOMERY, a co. in s.e. Texas, drained by the San Jacinto river and several creeks, and intersected by the International and Great Northern railroad; 1050 sq.m.; pop. '80, 10,154—5,229 colored. The surface is rolling and generally fertile, though there are some sandy plains; corn, sweet potatoes, and cotton are the chief products. Cattle-raising is carried on extensively. Co. seat, Montgomery.

MONTGOMERY, a co. in s.w. Virginia, drained by the Staunton and New or Kanawha rivers, the last being its w. boundary, and intersected by the Atlantic, Mississippi, and Ohio railroad; 460 sq.m.; pop. '80, 16,693—4,229 colored. The surface is mountainous, the co. being close to the Blue Ridge; there are extensive forests; and in the valleys, wheat, Indian corn, oats, and pork are the staples. Limestone is found. The climate is very healthful and invigorating. Co. seat, Christiansburg.

MONTGOMERY (*ante*), a city in Montgomery co., Ala., the capital of the state, and the co. seat, but inferior in size and population to Mobile; situated on a bluff on the left bank of the Alabama river and about 400 m. by river from Mobile; pop. '70, 10,588—5,183 colored. Montgomery is the terminus of the South and North Alabama railroad, and of the Montgomery and Eufaula line, and is also on the Western Alabama railroad. The river is navigable and boats run to and from Mobile at all seasons. The city also does a large business with the surrounding country, which is almost wholly engaged in the raising of cotton, an enormous quantity being sent to Montgomery annually, and all supplies obtained thence. In 1861-62 the place was occupied as a capital by the confederate government; evacuated in 1865 and a great amount of property destroyed, in part by the confederate and in part by the union forces. The city has 3 newspapers issuing daily and weekly editions, 4 banks, and 14 churches; among the public buildings are the state capitol, the co. court-house, a city-hall, masonic temple, etc. Montgomery was founded in 1817, and in 1847 was made the capital in place of Tuscaloosa.

MONTGOMERY, JOHN B., 1796-1873, b. N. J.; entered the navy in 1812, and was a midshipman on the *Niagara* in the battle of lake Erie, Sept. 10, 1813. For his gallantry on this occasion congress gave him a sword and a vote of thanks. He was attached to the squadron commanded by Decatur in the war with Algiers, commanded the *Portsmouth* during the Mexican war, in which he seized lower California and blockaded Mazatlan, and was made a capt. in 1853. He commanded the Pacific squadron in 1860, was commodore in 1862, and rear-admiral in 1866. He was last stationed at Sackett's Harbor, N. Y. He was retired in 1869.

MONTGOMERY, RICHARD, 1736-75, b. in Ireland, son of Thomas Montgomery, member of parliament for Lifford; educated at Trinity college, Dublin. In 1754 he obtained a commission in the army, came to America with his regiment three years afterwards, and displayed personal courage and military sagacity at the siege of Louisburg and in other actions. In 1760 gen. Wolfe appointed him adjutant of his own regiment. He took part in the expedition against Havana and Martinique, and shortly after returned to England (1763); resided there for nine years, sold his commission, and again came to America. He settled and married in New York, was a delegate from his county, Dutchess, to the provincial convention of 1775, and soon afterward was commissioned by congress as one of the brigades to command the colonial forces. An invasion of Canada was determined upon and in the same year (1775) Montgomery was made second in command of one of the two divisions sent out under Arnold and Schuyler. The latter was attacked by illness and obliged to return to Albany, leaving Montgomery at the head of the division. He at once pressed forward and though embarrassed by lack of munitions and food, and by the disaffection of some of his command, had before the end of November captured successively Chambly, St. Johns, and Montreal; thus gaining the mastery over the greater part of the province. In the next month a junction was effected with Arnold before Quebec. The assault of the town was at once resolved upon and on Dec. 31, shortly after midnight, attempted, a snow-fall aiding the concealment of the troops' movements. One division was to direct its attack against the fortifications at the lower end of the town, while the other under Montgomery's command was to scale the cape Diamond bastion. The surprise was complete, the British artillerymen retreating after one discharge. Unhappily Montgomery, who was pressing forward at the head of his troops, was instantly killed by this single fire, two of his aids falling with him. The undisciplined colonial troops were overwhelmed at the loss of their leader, and a precipitate retreat ensued. There is little doubt that Quebec would have fallen had it not been for the death of the gallant commander. His conduct and character were eulogized in parliament by Burke, Chatham, and even the bitter tory lord North; congress recognized his services by resolutions of respect and veneration; and by its order a monument was erected in his honor in front of St. Paul's church, New York city, where in 1818 his remains were interred with impressive ceremonies. The "Death of Montgomery" is one of Trumbull's masterpieces.

MONTGOMERY, Sir ROBERT, LL.D., b. Ireland, 1809; educated at Foyle college, Londonderry, and in 1828 appointed to the service of the East India company. In 1853

he was appointed judicial commissioner, superintendent of prisons, and director-general of police for the province of the Punjaub. For his services in the Indian mutiny, and in quelling the disturbances in the Oude, of which he had been made chief commissioner in 1858, he was thanked by parliament, and knighted. From 1859 to 1865 he was lieut. gov. of the Punjaub. In 1868 he was made a member of the council for India.

MONTGOMERY, WILLIAM READING, 1801-71; b. N. J.; graduated at West Point in 1825, and was appointed to the infantry. He served on the western and Canadian border, and through the Florida and Mexican wars. He was brevetted maj. for gallantry at Palo Alto and Resaca de la Palma. At Molino del Rey he led his regiment after the death of its senior officers, and was dangerously wounded. After further service in Texas and the west he resigned from the army in 1855. On the outbreak of the rebellion he raised a regiment of volunteers from his native state. For his gallantry at Bull Run he was made a brig. gen. He was military governor at various times of Alexandria, Annapolis, and Philadelphia; but resigned his commission, from ill-health, in 1864.

MONTH'S MIND is the name of a Roman Catholic office for the dead, continued through the period of a month, or repeated at the end of that period; the word *mind* being used in the sense of *remembrance*, which it has not infrequently in the common version of the Scriptures and other old English writings.

MONTHYON. See **MONTYON**.

MONTICELLO, the residence and estate of Thomas Jefferson, in Albemarle co., Va., three miles west of Charlottesville. The mansion, now in a dilapidated condition, stands on the top of a high hill overlooking a large extent of the neighboring country; and, at the time of its completion, about 1774, was one of the finest and most picturesque residences in the south, surrounded by beautiful lawns, groves, and gardens. It was Jefferson's home during sixty years; but shortly after his death his heirs were obliged to part with it.

MONTMAGNY, a co. in e. Quebec, having for its n. and n.w. boundary the St. Lawrence river at its widest portion, Goose island lying directly n., and the Grand Trunk railroad traversing the n. section on the s. bank of the river; about 623 sq. m.; pop. '71, 13,555. It is bounded on the s.e. by the state line of Maine, and drained by the n.w. branch of the St. John's river in the s. section, flowing s. along the s. base of a range of mountains, and is drained also by the Riviere du Sud in the north. Its surface is hilly, furnishing good pasture, and its soil is fertile. Forests of hard wood supply building timber, and it has saw and grist mills. Co. seat, Montmagny or St. Thomas.

MONTMÉDY, FORTRESS OF. The t. of Montmédy, in France, is picturesquely located on the river Chiers; pop. about 2,000. It has commerce in grain and wine, and there are manufactures of cheap leathers. It was in the line of the German invasion of France in 1870, and, being a fortified place, was defended with 8 rifled cannon and 65 pieces in battery, and contained a vast supply of munitions of war. It resisted the bombardment of the Germans in September, but succumbed to another attack Dec. 14.

MONTMORENCY, a co. in n.e. Michigan, drained by Black river and Thunder Bay river; 576 sq. m.; population not given in any census returns; unorganized in '80. Its surface consists of table-lands, with a sterile soil. It is extensively covered with forests, and contains beds of iron ore.

MONTMORENCY, a co. in the e. of the province of Quebec, Canada; n.w. of the St. Lawrence; intersected by the St. Anne and Montmorency railroads; 2,183 sq. m.; pop. '70, 12,035-11,602 of French descent. Co. seat, Château Richer.

MONTMORENCY, or MONTMORENCI, FALLS OF, on the Montmorency river, near its mouth, about 8 m. from Quebec, Canada. They are 50 ft. wide and 250 ft. high. They are much visited by tourists. A village of the same name is situated near them.

MONTOUR, a co. in e. central Pennsylvania; 150 sq. m.; pop. '70, 15,344-12,824 of American birth. The surface is uneven, and crossed from e. to w. by hills and ridges of a considerable height; one of these, Montour ridge, contains limestone and iron ore, which are found also in other parts of the county; rolled and forged iron is largely exported. The n. branch of the Susquehanna flows through the s., and the rest of the county is watered by Big Roaring, Mahanouring and Chillisquaque creeks. The chief staples are oats, Indian corn, wheat, and potatoes. It is on the Lackawanna and Bloomsburg, and Danville, Hazleton, and Wilkesbarre railroads. Co. seat, Danville.

MONTPELIER (*ante*), co. seat of Washington co., Vt.; on the Onion river, 40 m. e.s.e. of Burlington, and 150 m. n.n.w. of Boston; lat. 44° 17' n., long. 72° 35' w. It is on the Central Vermont, Montpelier and Wells river, and the Montpelier and White river railroads, and built on a plain surrounded by a hilly country. The state-house, erected in 1857, is of granite, and surmounted by a dome 124 ft. high. It also contains a court-house, 7 churches, banks, insurance companies, 4 weekly newspapers, the state library, and the Vermont Methodist seminary and college for women, besides a number of public and private schools. It is a center of trade for the country, and contains machine-shops, tanneries, foundries, and flour and saw mills. Hats and caps, furniture, and children's carriages are also manufactured. It was made the state capital in 1805.

MONTPENSIER, ANNE MARIE LOUISE D'ORLÉANS, Duchesse de, 1627-93; niece of Louis XIII. of France, known as *grande mademoiselle*; one of the richest princesses of her time, ambitious, and beautiful. Though 11 years older than the dauphin, afterward Louis XIV., she sought to marry him, but failed. Charles II. of England when driven from his throne was a refused suitor for her in marriage. In 1649 she placed herself with Condé at the head of the rebellion of the Fronde, and meeting with some transient success endeavored to make it the basis of claims on the hand of Louis XIV. Condé found in her wealth and resolution his most powerful auxiliary. Jointly they were at one time in possession of Paris, installed in the Hotel de ville, while Louis XIV. was obliged to fight for possession of the capital. While the battle was going on, July 2, 1652, in the faubourg St. Antoine between the troops of Condé and those of the king, the former was saved from defeat by Mlle. Montpensier, who ordered the guns of the Bastille to be turned against the king's troops, and with her own hand fired the first gun. In the excesses against the royalists which followed Condé's success in Paris, Mademoiselle was conspicuous for her humane efforts to put a stop to cruelties. On the re-entry of Louis XIV. into Paris, she retired to her estates for five years and dictated *Mémoires*. In 1657, at the age of 30, she was permitted to return to court, where she soon became ridiculous by falling in love with a young cadet named Lauzun, who was put in the Bastille by Louis XIV. on account of his dangerous blandishments. At the age of 42 Mademoiselle offered her hand and heart to the same youth, the king consenting to the marriage; but the consent was withdrawn before the ceremony could take place; Lauzun was sent away and afterward placed in the Bastille for ten years. It is supposed, however, that they had been secretly married, and that this was the pretext on which the king exercised his authority for their separation. When Mademoiselle was 52 years old the marriage was consummated, but Lauzun was then become a miserable wreck of former beauty, and the match was altogether unhappy. It is said that Lauzun's release from prison was bought by Montpensier by the settling of large estates on bastard sons of Louis XIV. by Mme. de Montespan. The brutality of Lauzun soon necessitated a separation, and she subsequently devoted herself to religious exercises. The *Mémoires* were published in Amsterdam in 1786 in 8 volumes. A Paris edition of these and other works from her pen was published by Chéruel in 1858.

MONTPENSIER, ANTOINE MARIE PHILIPPE LOUIS D'ORLÉANS, Duc de, b. France 1824, fifth son of Louis Philippe. He was educated at the college of Henry IV., and went to Africa in 1844 as lieutenant in the artillery, receiving a wound in the Ziban campaign. After a tour in the east he married, in 1846, the infanta Marie Louise de Bourbon, sister of queen Isabella II. The marriage created great excitement, Louis Philippe being generally credited with an intention to seat his son upon the throne of Spain. During the revolution of 1848, the duke resided in England, but soon returned to Spain, taking up his residence at Seville. In 1859, he was appointed captain-general of the Spanish army. During the political agitation, before the flight of Isabella, the duke quitted Spain at the request of the ministry, at the same time resigning his position in the army, and the title of infante. Returning to Spain, under the provisional government, he offered himself as a candidate for the throne, but destroyed his chances for election by a duel with his cousin, the infante don Enrique de Bourbon, whom he killed March 12, 1870. He was court-martialed and sentenced to one month's banishment from the capital. His eldest daughter, Marie, was married to the comte de Paris, in 1848; and his third daughter, Maria de las Mercedes, married her cousin, Alfonso XII., in 1878, and died June 26, of the same year.

MONTRAILLÉ, a co. in n.w. Dakota, n.e. of the Missouri river, next to British America. The Rivière des Lacs; and White Earth river flow through it. It has only lately been set off.

MONTREUX, a commune in the canton of Vaud, Switzerland, on lake Geneva, s.e. of Lausanne; pop. '70, 4,731. It contains a number of villages, including Clarens, celebrated in connection with J. J. Rousseau, and Montreux a winter resort for invalids. This commune is said to be one of the most healthful places in the world.

MONTS, PIERRE DU GUAIST, Sieur de, 1560-1612; b. in France of an Italian family, became a Protestant, and a favorite of Henry IV., a protégé in the royal household and governor of French provinces. In 1602 the king made him governor of the French company of Canada, which was given exclusive right to trade in furs between 40° and 50° n. lat., the right to make land grants and govern the country, under the name of Acadia, with the title for himself of vice-admiral and lieutenant-general. Taking with him Samuel Champlain, Poutrincourt, Biencourt, and Pontgravé as chief officers, he sailed from Havre, March 7, 1604. He made Poutrincourt governor of Port Royal, explored the bay of Fundy, made Tadoussac in the St. Lawrence his fur trade depot, and returned to France. There he found his monopoly had excited such lively opposition that his privileges had been withdrawn. But he succeeded in recovering a part on more specific conditions and returned to Canada, where Champlain, one of his officers, founded the city of Quebec in 1608, and his fur trade became profitable. After Henry IV. was assassinated Monts's privileges were taken away, to his financial ruin. Charlevoix mentions Monts as a thoroughly honest man, of capacity and straightforwardness, fitted to succeed in any enterprise of a commercial character. He died in Paris.

MONTYON, or **MONTHYON**, ANTOINE JEAN BAPTISTE ROBERT ANGEL, Baron de, (sometimes erroneously named MONTHYON). 1733-1820; b. in Paris. Left in the possession of considerable wealth while young, he soon became distinguished by his noble use of it. An advocate at 23, member of the council of state at 27, at the head of the government of Auvergne at 33, Montyon in every place exhibited benevolence and philanthropy in connection with administrative ability. He dedicated 20,000 livres annually to the help of poor workmen. After serving successively as intendant of Provence and La Rochelle he was called to Paris to be made councillor of state in 1775. Author as well as statesman and philanthropist, he sent to the académie Française in 1777 an *Éloge de Michel de l'Hôpital*; in 1778 published *Recherches et Considérations sur la Population de la France*. Often he relieved the wants of writers in distress, who rarely knew the source of their benefactions. In 1780 he founded a large number of prizes in the various societies of France, to be awarded through their officers to meritorious improvements or work in the arts, for the most useful literary works, for the best means of avoiding the unhealthy effects of certain mechanical operations upon the workmen, for the best treatises on mechanical processes, for the noblest acts performed by the poor, and for the most useful medicine. For each of these prizes or sets of prizes he set apart 12,000 livres of which the income should form the annual awards. At the beginning of the revolution, fearing the storm that menaced the rich and noble, he emigrated to Geneva, whence he sent an essay to the French academy, entitled, *Conséquences qui ont Résulté pour l'Europe de la Découverte de l'Amerique*, for which he received the prize of 3,000 francs, and presented it to the academy to be used for another prize. He took no part while in Geneva, or afterwards while residing in England, with the intrigues of the royalists. In 1798 he published in London a valuable work entitled *Rapport sur les Principes de la Monarchie Française*, intended as a refutation of a work by Calonne in which that minister asserted that France never had had a legal constitution. Montyon made a masterly showing that while France had not lacked for legal constitutions her kings had always power and will to violate them at pleasure. He remained an exile from his country throughout the directory and the empire of Napoleon I., not so much by his attachment to the old monarchy as his repugnance to the military horrors of imperialism. He returned to Paris in 1814, and after 1815 re-established such of his prizes and beneficences as had been stopped by the revolution and the empire, and not only put them on a new footing but richly endowed new charitable institutions in Paris; and on his death in Paris distributed permanent bequests to a large number of the most beneficent institutions of France. Among his published works of permanent value are: *Quelle Influence ont les diverse Espèces d'Impôts sur la Moralité, l'Activité, et l'Industrie des Peuple*; and, *Particularités et Observations sur les Ministres de Finances les plus Célèbres depuis 1660 jusqu' en 1791*, a remarkably interesting compendium of facts, philosophy, and anecdotes.

MONUMENTAL THÉOLOGY designates the scientific study of theological opinion and feeling as unconsciously expressed in works of art. While, in written language, thought is presented by the discursive faculty in elements which are gradually apprehended, a work of art, as a completed object existing in space, may produce at once its grand impression on the mind. But as the Christian church took its rise in the midst of Judaism and of heathen worship, and as its first members had been trained under the influence of one or both of these conflicting systems, Christian monuments as well as early church doctrine and practice often present a mixed character. In the progress of the church it was also frequently attacked by errors within and hostile influences without, the effect of which would be exhibited in its works of art. A complete consideration of monumental theology, would, therefore, require careful attention to these modifying agencies as they show themselves in works of art. The principles of Christianity, from its origin to the present day, have influenced human art as well as thought and life. While this influence has sometimes been disastrously exerted, it has generally been in some degree beneficial. After the revival of classical learning and the infusion of new elements into modern life, art was indeed partly liberated from that subjection to the church which in the middle ages had been complete. Yet it must always find its noblest inspiration in Christian themes. Consequently its monuments may be expected to exhibit much of the Christian thought and feeling of each successive age. Hence recent writers on theological encyclopædia continue the study of Christian monuments to the present time. Piper, the chief advocate of this method of collateral theological study, presents the following classification of its themes: I. Of the essential nature of Christian art—1. Of the art faculty. 2. The artist. 3. Works of art. II. History of Christian art and art-works—1. Chronology and geography of art. 2. The various species of art. 3. Art monuments. III. Christian art ideas—1. In architecture. 2. In the graphic arts. For theological purposes this last is the principal division, and to illustrate it the others are chiefly preliminary. Architecture furnishes to this department much less than painting and sculpture. Biblical subjects are found represented in works of art through all periods of church history. The *Biblia Pauperum*, Bible of the poor, for example, consisted of 40 or 50 pictures giving the events of the life of Christ and some of the Old Testament times; each picture had a Latin text or sentence. A larger work with the text in rhyme was called the *Mirror of Salvation*. Before the reformation these were the chief text-books in use, especially by the monks in their preaching, and were practically all the Bible which the

laity and even many of the clergy knew. The pictures were copied in sculptures, in paintings on walls and on glass, and in altar-pieces. And after the invention of printing the *Biblia Pauperum* was perhaps the first book printed in Germany and Holland, first with wooden blocks and then with types. While monumental theology is an interesting and to some extent useful collateral study, its claim to an independent scientific treatment is denied by many eminent authors, and must be regarded, at best, undetermined.

MOODY, a co. in s.e. Dakota, bounded by Missouri, drained by the Big Sioux river and its branches; about 500 sq.m.; pop. '80, 3,915—926 foreign, a very large increase within the last few years. The surface is a rolling prairie and quite fertile, wheat being the chief product. Co. seat, Flandreau.

MOODY, DWIGHT LYMAN, b. Mass., 1837. He worked on a farm until the age of 17, and then became a clerk in a boot and shoe store in Boston. He joined a Congregational church, and in 1856 he went to Chicago, where he engaged in mission work among the poor. He established a Sunday school, which in a year numbered 1000 scholars. During the war of the rebellion he was in the service of the Christian commission, and subsequently a city missionary employed by the Young Men's Christian association of Chicago. A church was built for him, and though unordained, he was chosen its pastor. In the Chicago fire of 1871, the church, mission house, and furniture were destroyed. A new church was erected large enough to accommodate 2,500 persons. In 1873 he visited Europe with Ira D. Sankey, the singer, holding large and successful meetings in Edinburgh, Glasgow, Dublin, London, and other important places. Returning home in 1875, he has held large and interesting meetings in New York and many other large cities. He makes no claim to scholarship or rhetorical graces; but is a close student of the Bible, a most earnest, faithful, and simple preacher, and is recognized as charitable and judicious. Vast crowds have attended his services in England and this country, and many converts have been gathered.

MOODY, JAMES, 1746—1809; b. N. J.; a farmer who commanded a force of Tories during the revolutionary war. He was taken prisoner, but escaped from West Point, where he was confined, and went to England. There, in 1783, he published an account of his loyalist campaigns, under the title of *Lieut. James Moody's Narrative of his Exertions and Sufferings in the Cause of Government since 1776*. After the war he removed to Nova Scotia. His *Narrative* was reprinted at New York in 1865.

MOODY, JOSHUA, 1633—97; b. England; in childhood came to Newbury, Mass.; graduated at Harvard college in 1653; began to preach in 1658; became pastor of the church in Portsmouth, N. H., in 1671. He became involved in quarrels with the government of the colony, and was imprisoned, but released on condition of his leaving the colony. In 1684 he was settled in Boston as the assistant minister of the First church; was appointed president of Harvard college, but declined the appointment. During the witchcraft trials in 1692 he opposed the unjust and violent measures against the accused, and aided some to escape from prison. His zeal occasioned his dismissal from the church, and he left the ministry. He published *A Practical Discourse Concerning the Choice Benefit of Communion with God in his House, witnessed unto by the Experience of Saints as the best Improvement of Time, being the sum of Several Sermons on Psalm lxxvii. 10, preached at Boston on Lecture Days; A Sermon on the Sin of Formality in God's Worship, preached on the Weekly Lecture in Boston*.

MOODY, SAMUEL, 1676—1747; b. Mass.; graduated at Harvard college in 1697, was minister at York, Me.; was chaplain to sir William Pepperell's expedition against cape Breton. He was an eccentric but very useful man; some of his odd expressions are still in circulation, showing much shrewdness and a quick wit. He refused a regular salary, depending on the voluntary contributions of the people. He published *The Doleful State of the Damned; Judas hung up in Chains; Election Sermon; Life and Death of Joseph Quasson, an Indian*.

MOO'ERS, BENJAMIN, 1758—1833; b. Mass.; was an ensign in the revolutionary army, and afterward lieutenant and adjutant. He served through the war, at the close of which he settled in Plattsburg, N. Y. He was for a number of years a member of the legislature of that state, besides holding various local offices, and he was a major-general of militia, and commanded at the battle of Plattsburg, Sept. 11, 1814. The *Order Book*, kept by him when adjutant, was published in 1876.

MOOLTAN. See MULTÂN, *ante*.

MOONSEED, or yellow parilla, *menispermam canadense*; nat. order *menispermaceæ* (q.v.). The Canadian moonseed is a North American climbing plant having peltate, roundish-cordate, and angular leaves, small clusters of greenish-yellow flowers, and black, glaucous, roundish, kidney shaped drupes (stone fruit). The root was formerly known in commerce as Texas sarsaparilla; its botany was established by R. P. Thomas in 1855. The root is several feet long, about a quarter of an inch thick, cylindrical when dry, with longitudinal wrinkles, and thin, branching rootlets. It contains a small quantity of berberine, and a larger quantity of a white alkaloid soluble in ether, alcohol, and much water. It also contains starch, and other constituents which have not been

examined. It is regarded as a tonic, alterative, and diuretic, similar in properties to sarsaparilla, and is used in scrofulous affections as a substitute for that plant.

MOORCROFT, WILLIAM, about 1780-1825; b. England; one of the earliest of veterinary surgeons, and also one of the earliest explorers of the Himalayas, and the lakes, rivers, and valleys of Chinese Tartary. An account of his travels was published in London in 1841, edited by prof. H. H. Wilson, entitled *Travels in the Himalayan Provinces of Hindustan and the Punjab, in Ladakh and Kashmir*.

MOORE, a co. in central North Carolina, drained by Cape Fear, Deep, and Little rivers, and many creeks; and traversed by the Raleigh and Augusta railroad; 760 sq.m.; pop. '70, 12,040. The surface is hilly and broken, covered in great part by forests. Cotton, Indian corn, wheat, and pork are the staples; coal has been found. Chief town, Carthage.

MOORE, a co. in s. central Tennessee, organized in 1872; drained by the Elk river and its creeks, and traversed by the Nashville, Chattanooga and St. Louis railroad; 160 sq.m.; pop. '80, 6,235-785 colored. The surface is broken and hilly, covered in great part by forests of oak, chestnut, walnut, and other valuable timber. The staple products are wheat, corn, and oats; limestone is found. Co. seat, Lynchburg.

MOORE, ALFRED, 1755-1810; b. N. C.; became capt. in 1775 in a North Carolina regiment whose col. was his uncle, col. James Moore. He afterwards threw up his commission, but, after the capture of Wilmington by the British, he enlisted a volunteer force, which did good service during the remainder of the war. In 1790, when his knowledge of the law was still extremely scanty, he was elected by the state legislature attorney-general, and he soon acquired sufficient legal learning to discharge with credit the duties of that office. In 1798 he took a seat on the bench of the state court, from which he was promoted the next year to the supreme court of the United States, where he remained till 1805.

MOORE, BENJAMIN, D.D., 1748-1816; b. Long island; graduated at King's, now Columbia college, in 1768; admitted to the ministry as deacon and priest in England, in 1774, by the bishop of London; returned to America and was assistant minister of Trinity church, New York, 1774-1800; became rector in 1800. In 1801 he was consecrated bishop of the Protestant Episcopal church of New York, and also appointed professor of logic and rhetoric in Columbia college. He was president of the college, 1800-11, continuing also to perform the duties of the ministry. Dr. Hobart, who succeeded him, was his assistant after he became disabled from paralysis. He was an accomplished scholar and an able preacher. He published two sermons in the *American Preacher*; also, a *Sermon before the General Convention*; *A Pamphlet in Vindication of Episcopal Services*. His *Posthumous Sermons* were published by his son, Clement C. Moore.

MOORE, CHARLES WHITLOCK, b. Boston, 1801; a prominent freemason, and for many years secretary of the Massachusetts grand lodge. He established *Zion's Herald*, at Boston, in 1823, and the *Freemason's Monthly Magazine* in 1841. He has published a number of masonic manuals.

MOORE, CLEMENT CLARK, LL.D., 1779-1863; b. in New York; son of bishop Moore of R. I.; educated at Columbia college, graduated in 1798, and, having made a specialty of the study of Hebrew, was appointed professor of biblical learning in the Protestant Episcopal theological seminary of New York (1821), having already, in 1809, published a Hebrew and English lexicon. In this institution he remained, some changes being made in the title of his professorship, until 1850, when he retired with the title of professor emeritus. The plot on which the seminary stands was the gift of Dr. Moore. He was a poet of merit; published a collection of poems in 1844, and in 1850 *George Castriot*. By far the best known of his poetical writings is the ballad beginning "'Twas the night before Christmas; and all through the house," etc.

MOORE, ERASMUS DARWIN, b. Conn., 1802; studied theology at New Haven in 1830; was pastor of the Congregational church at Natick, Mass., 1833-38, of Barre 1840-42; edited the *Boston Recorder* 1844-46, *Boston Reporter* 1846-49, *Congregationalist*, 1849-51. He published *Life Scenes in Mission Fields*.

MOORE, FRANK, b. N. H., 1828; brother of George Henry. Became a journalist and general writer, in early life; in 1869 was appointed secretary of legation at Paris, and resided there, in the performance of his official duties, during the period of the Franco-German war and the commune. He edited and prepared the *Rebellion Record*, a voluminous and valuable chronicle of the American rebellion of 1860-65, published in 12 vols., 1861-71. He published *Diary of the American Revolution*, 2 vols.; *Songs and Ballads of the American Revolution*; *Lyrics of Loyalty* (songs of the war against rebellion); and *Rebel Rhymes and Rhapsodies*—a similar collection made from among the writers of the confederate side. In recent years he has devoted himself to journalism in New York, and is at present (1881) an editorial writer on the *N. Y. Commercial Advertiser*.

MOORE, GEORGE HENRY, LL.D., b. N. H., 1823; went to New York at the age of 16 years, and assisted his father, then librarian of the N. Y. historical society, whom he

succeeded in that position in 1849. He remained in this office until the foundation of the Lenox library, when he was named by the late James Lenox, esq., founder of the library, to be its first superintendent, which position he still holds (1881). He received his degree of LL.D. from the university of New York. He is a learned bibliographer and a skilled administrator, and to his capacity the N. Y. historical society owes in a great degree its progress from an insignificant beginning to a secure and eminent position among the leading literary institutions of the country. Mr. Moore has been a writer on certain special subjects concerning which he is a recognized authority. He published *The Treason of Charles Lee*; *Employment of Negroes in the Revolutionary Army*; *Notes on the History of Slavery in Massachusetts*; and *History of the Jurisprudence of New York*.

MOORE, Sir HENRY, 1713-69; b. Jamaica; was made a baronet for suppressing a slave insurrection while governor of Jamaica; and next received the appointment of governor of New York, an office he retained from 1769 until his death.

MOORE, HENRY, 1751-1843; b. in Dublin; became a Wesleyan Methodist; was admitted to probation in 1779, and for some years preached in Ireland, after which he was associated personally in John Wesley's work. As a revivalist and a preacher he had great success, and was the last to die of those whom Wesley had ordained. He wrote the *Life of John and Charles Wesley and Memoirs of the Family* (1824); *Memoir of Mary Fletcher*; and an autobiography, accompanied by an account of his life written by Mrs. Richard Smith (1844).

MOORE, JACOB BAILEY, Jr., 1797-1853; b. N. H.; learned the printer's trade in Concord, where he worked in the office of the *Patriot*, a newspaper to which he contributed. He married into the family of the proprietor, and was taken into partnership by him but left the paper to found the *N. H. Statesman*, for the purpose of pressing the election of John Quincy Adams to the presidency. In 1828 he was made a member of the state legislature, and in the following year sheriff of Merrimack co., a position which he held for five years. He also edited the *N. H. Journal*; and in 1839 went to New York, where, for a brief period, he edited the *Daily Whig*. In 1841-45 he was employed in the post-office in Washington. In 1845 he was appointed librarian of the N. Y. historical society library, and in 1848 postmaster at San Francisco, Cal. He was one of the compilers of Farmer and Moore's *Historical Collections of New Hampshire*, one of the earliest publications in American local history. He also published a *History of Concord, N. H.*; *Laws of Trade in the United States*; *History of Andover*; *Gazetteer of New Hampshire*; and *Memoirs of American Governors*.

MOORE, JESSE HAILE, b. Ill., 1817; educated at McKendree college, Lebanon, and in 1844 became principal of Georgetown seminary. He became pastor of the Methodist Episcopal church at Shelbyville in 1848, and was successively principal of Paris seminary and president of Quincy college. In 1862 he raised the 115th regiment of Illinois volunteers, and served through the war, retiring at its close with the brevet rank of brig. gen. He served in Congress, 1869-73.

MOORE, MARTIN, 1790-1866; b. Mass.; graduated at Brown university in 1820; was pastor of a Congregational church at Natick, Mass., for nearly 30 years, and afterwards at Cohasset. He edited the *Boston Recorder* for 20 years. He published *History of Natick*; *Life of John Eliot*. He was vice-president of the New England genealogical society in 1861-6.

MOORE, NATHANIEL, F. LL.D., 1782-1872; b. New York; educated at Columbia college, and admitted to the bar. In 1817 he was appointed adjunct professor, and in 1820 full professor of Greek and Latin in Columbia college, where he remained till 1835, when he went abroad. On his return in 1837 he became librarian of the college, to whose presidency he was called in 1842. He held that office till 1849. He published *A Historical Sketch of Columbia College*; *Ancient Mineralogy*; *Lectures on the Greek Language and Literature*; and *Remarks on the Pronunciation of the Greek Language*.

MOORE, RICHARD CHANNING, D.D., 1762-1841; b. New York; educated at King's, now Columbia, college; became a physician; entered the ministry of the Protestant Episcopal church; was pastor at Rye, N. Y.; rector of St. Andrew's, Staten island, 1789-1809; rector of St. Stephen's, New York, 1809-14; consecrated bishop of Virginia in 1814 as successor of bishop Madison. He was a prominent leader in the evangelical branch of the Episcopal church. During the last twelve years of his life he had as an assistant bishop Meade, who succeeded him as bishop of the diocese. He published many *Charges*, and a sermon on *The Doctrines of the Church*.

MOORE, WILLIAM, b. Penn., in the 18th c.; father of the marchioness de Marbois. He was president of the state executive council for two years, from 1781, and long a merchant in Philadelphia.

MOORE, ZEPHANIAH SWIFT, D.D., 1770-1822; b. Mass.; graduated at Dartmouth college in 1773; was pastor of the Congregational church at Leicester, Mass., in 1798; elected professor of languages in Dartmouth college in 1811; president of Williams college in 1815, and of Amherst in 1821. He was especially interested in natural science. He published *An Oration at Worcester*; *An Address to the Public in respect to Amherst College*; and two occasional Sermons.

MOORSBEDABAD, a city in Hindustan, in a district of the same name, and in the province of Bengal, of which it was formerly the capital; 124 m. n. of Calcutta; pop. 46,182. Its name originally was Muksoosabad. Including Cossimbazar it extends 8 m. on both sides of Bhagiratty or Cossimbazar river, a branch of the Ganges. The city was never fortified except by an occasional rampart during the Mahratta invasion in 1742. The streets are so narrow as to be impassable for European carriages. The buildings are generally of mud. Most of them are of one story, with tiled roofs. Even the palace of the nawaub is hardly noticeable. A long, narrow, winding street runs from the market, containing poor huts, and this is intersected by other streets still narrower and very unpleasant. On account of defective drainage the place is very unhealthy, and in 1814 many Europeans suffered in the general mortality. It has an extensive inland traffic, and the river is constantly covered with boats. The staple products are silk and indigo. The town is favorably situated for commerce. A Mohammedan college, called Nizamut college, was founded here several years ago, to which an English professorship was attached. In 1757 Calcutta became the capital of Bengal.

MOOSEHEAD LAKE, the largest lake in Maine, from which the Kennebec river takes its rise. It lies on the borders of Somerset and Piscataquis counties, about 75 m. n. by e. of Augusta; is 36 m. in length, from 3 to 10 in width; and is surrounded by a thickly wooded country that is sparsely inhabited. The forests abound in game, including the deer and caribou; and the lake, with the neighboring region, is much frequented by sportsmen. In the winter the lumbermen of the Kennebec cut much of their timber near its banks.

MOOSH, a t. of Asiatic Turkey, capital of a small pashalic of the same name; population estimated at 6,000. It is pleasantly situated on the sides and summit of a conical hill near the Murad Chai, or eastern arm of the Euphrates, 75 m. s.e. of Erzeroum. The plain in which it stands is about 40 m. in length and 12 or 14 m. in breadth, and is well-watered. The climate is variable. It contains 100 villages, and produces grain, tobacco, and wine of good quality. The town presents a poor appearance. It is inhabited by Turks and Armenians, the latter, having the trade of the place, are wealthy, and pay an annual tribute of £2,000, from which the Turks are exempt. There are 7 mosques, 4 churches, and several large, well-furnished bazaars. Coarse cotton cloth is manufactured here. The chief articles of export are tobacco and cattle. But a small quantity of European manufactures is imported.

MOQUIS, the name of a tribe of Indians living in n.w. Arizona, on the Little Colorado and San Juan rivers. They are known as far back as the middle of the 16th c., when they were visited by the Europeans, and received from them certain domestic animals, including sheep, the breed of which they continue to hold. Missionaries were sent among them by the Franciscans, but in the latter part of the 17th c. there was a general rising of the Moquis, when the missionaries were exterminated. An attempt in 1723, on the part of the viceroy of Mexico, to subdue this tribe, was unsuccessful; but 25 years later a new Franciscan mission had been effectual in making converts among them. Since that time they became peaceable, only resisting the attacks of the Apaches and Navajoes, who became their bitter foes, and have harassed them greatly. They are agricultural; are divided into 9 subdivisions, or families; and dwell in villages of houses built after the manner of the Indians of New Mexico. At the time when the United States government first took them in charge the Moquis were estimated to number 8,000; but in 1855 they were severely afflicted by an epidemic of small-pox, and their numbers much reduced; and, again, they suffered from famine in 1866. Their number in 1872 was reported at 1663. They are not intemperate, and their women are noted for chastity.

MORA, a co. in n.e. New Mexico, adjoining Texas; 5,000 sq.m.; pop. '70, 8,056—7,775 of American birth. The surface, especially in the w. portions, is mountainous, intersected in the w. by a ridge from the Rocky mountains. Most of the county is a wide, treeless plain. The Canadian river and Mora creek flow through it. The principal productions are Indian corn, wheat, oats, hay, and wool. There are manufactories of flour and wool. Co. seat, Mora.

MORALES, LUIS DE, 1509-86; b. Spain; studied the works of the Spanish masters, and was called *El Divino*, "the divine," from his preference for sacred subjects. His Saviors and Magdalenes are exact representations of suffering borne with meekness. His best work is the "St. Veronica" in the church of the Barefooted Trinitarians in Madrid.

MORAN, BENJAMIN, b. Penn., 1820; at first a printer in Philadelphia. He made a tour of England, on foot, in 1850, publishing an account of it in 1853, under the title of *The Footpath and the Highway*. In 1854 he became private secretary to James Buchanan, then American minister to England. In 1855 he was appointed secretary of the American legation in London, where he remained till 1874, when he became minister to Portugal, which post he still retains (1881).

MORAN, EDWARD, b. Lancashire, Eng., 1829; removed with his parents while young to Philadelphia, and became a pupil there of James Hamilton, a well-known marine painter. His work early indicated much aptitude for this class of subjects, and his paintings were of a good order of merit from the first. He went to London in 1862,

remained abroad long enough to profit by the study of the great marine painters of England and the continent, and returned to reside in New York in 1869. His works have found steady sale, and have frequently been the originals for engravings. Among them are "Outward Bound," "Lanch of the Life-Boat," "The Burning Yacht," "Minot Ledge Light," "The Coming Storm in New York Bay," "Solitude," and "Dream Life." Mr. Moran is careful in the finish of his pictures, and has confined his brush almost exclusively to marine subjects. He is an associate of the national academy of N. Y., where he now resides, and a member of the society of American artists.

MORAN, PETER, b. Lancashire, Eng., 1842; brought by his parents to Philadelphia, where he was educated, and then put with a lithographer to learn his art. He did not like it; and deserted it for the studios of his elder brothers, where he found his vocation in a field slightly different from theirs and yet allied. His taste led him to pastoral and quiet scenes in country life, and especially to animal painting, though he has not confined himself to still-life pictures. "Twilight," "The Return of the Herd," "The Thunderstorm," "Fog on a Sea-Shore," and "Settled Rain," are the names of a few of the paintings which have given him celebrity, and indicate his appreciation of the poetic aspects of still-life in nature. The "Return of the Herd" received a medal at the centennial exhibition.

MORAN, THOMAS, b. in Lancashire, Eng., 1837. When seven years old his family came to Philadelphia, where Thomas was educated in the city schools, and then apprenticed to Mr. Scattergood, an engraver. During this apprenticeship he devoted all his spare time by day to painting in water colors and the study of painting, and his evenings to drawing. His success was immediate; his water-color paintings sold quickly at good prices. When master of water-colors, and studying from nature, he perceived the greater range of oil painting, and at 23 years of age turned his attention to that department. When 25 he visited England. In 1866 he again went to Europe, visited England, France, and Italy, and remained several years for work. He returned in 1871 and joined prof. Hayden's party of exploration to the head waters of the Yellowstone river, where he made the sketches from which he produced the picture of the "Grand Cañon of the Yellowstone," purchased by congress, and now filling a panel in the capitol at Washington. The following year he visited the Yosemite and the Sierras of California and Nevada. In 1873 he joined the U. S. exploring expedition, conducted by maj. J. W. Powell, which surveyed the wonderful canyons of the Colorado river in Colorado and Utah, and on his return completed a picture of "The Chasm of the Colorado," which was purchased by congress as a companion to the Yellowstone picture. The following year he visited the mountain of the Holy Cross in Colorado, and on his return to New York, where he has made his residence, he finished a picture of that mountain, which ranks as one of his grand works. These are a few of Mr. Moran's large works. Of smaller pieces he has been a prolific worker in every department of landscape art. Among these are: "The Lost Arrow," "The Ripening of the Leaf," "Dreamland," "The Groves were God's First Temples," "The Pictured Rocks of Lake Superior," "The Conemaugh in Autumn," "The First Ship," "The Flight into Egypt," "The Remorse of Cain," "The Children of the Mountain," "The Track of the Storm," "Ponce de Leon in Florida," "New York from Communipaw," and "After a Thaw." It is to Mr. Moran's skilled pencil that the world is indebted for the superb illustrations on wood that adorn the reports of both Hayden's and Powell's explorations and the most spirited recent engravings of Rocky mountain scenery. "The Wonders of the Yellowstone," which have been illustrated in chromo by L. Prang & Co., are from his water-color sketches. Mr. Moran's style is marked neither by over-care nor by carelessness of finish. In the "After a Thaw," a locomotive on the flushed flats of New Jersey, seen through a spring mist, becomes a picture of poetic beauty.

MORATA, OLYMPIA FULVIA, 1526-55; b. Ferrara; was carefully educated, and became an accomplished classical scholar. She is said to have given lectures on classical subjects at Ferrara in her 16th year. She afterward married a German physician named Andreas Grunthler, and was converted to Protestantism. In 1553 margrave Albert of Brandenburg pillaged Schweinfurt, where she was living, and she lost her library, and was forced to take refuge in Hammelburg. Grunthler was presently appointed a professor at Heidelberg, where she went to reside. She published many poems, written in Greek or Latin.

MORATIN, NICOLAS FERNANDEZ DE, 1737-80; b. Madrid; a friend of Montiano, the restorer of classical tragedy in Spain. Following the example of Montiano and Luzan, he attempted to reform the drama, and to purge it of romanticism. In 1762 he published three discourses against the older drama, under the title of *Desengaños al Teatro Español*. In these discourses he bitterly attacked the old characteristic *Autos Sacramentales*, which were suppressed by the government in 1765. In the same year that the discourses appeared he wrote a comedy, *La Pentimétra*, in the French manner; neither this, nor his tragedy *Lucrecia*, was represented, on account of the strong prejudice then prevailing in Spain against French innovations. In 1770 he succeeded in having his tragedy of *Hormesinda* produced on the stage, and it was favorably received. He wrote but one more tragedy, *Guzman el Buena*, which was never performed. Before this, he had turned his talents in the direction in which he was to do his best work, and had

published, in 1764, a collection of verses called *El P.éa*. This was followed the next year by *Diana*, a didactic poem on the chase. His most important work, a historical epic called *Las Naves de Cortés Destruídas*, appeared the same year. Moratin at first practiced law, but was afterward made professor of poetry in the imperial college at Madrid. He formed a club, which met at Madrid and considered the productions of contemporary literature. He was on intimate terms with the chief scholars and authors of Spain.—Cadahalso, Ayala, Montiano, the botanist Ortega, and Fajardo, the translator of Buffon. His posthumous works were published by his son Leandro, in 1821.

MORAVIANS (*ante*), so named because Moravia was at one time their principal seat, existed as a body of Christians—I. From the time of John Huss, about the middle of the 15th c., when they were more commonly called the Bohemian brethren. In 1456 some members of a parish in Prague, wishing for their own personal welfare to escape from the corruption of the national church, withdrew, by permission obtained from the regent of Bohemia through the intervention of their priest, to an estate called Lititz, on the eastern frontier, that had been desolated by war and was thinly inhabited. Their object was not to form a new sect, but to continue the reformation which Huss had commenced, limiting their efforts, however, to the society formed among themselves within the national church, the members of which were pledged to adhere to the Bible as the only rule of faith and practice, to maintain a scriptural discipline, and in administering the Lord's supper to employ the exact words of Christ without attempting any explanation of them. In 1457 they adopted a statement of their principles and committed it to the care and administration of 28 elders. They assumed at first the title of *Brethren and Sisters of the Law of Christ*, afterward shortening it to *The Brethren*. Still later the well-known Latin title *Unitas Fratrum*, Unity of the Brethren, came into use, and is now their official designation. Gregory the patriarch presided over them, and some of the priests of the national church ministered to them. Their influence rapidly extended through Bohemia and Moravia. Their elders made their principles known, and received many earnest inquirers into fellowship. In 1461 they suffered persecution, notwithstanding which they continued to grow. In 1464 three of the elders were intrusted with a special supervision of their affairs, and received written instructions for their guidance. In this document they say, "We are, above all, agreed to continue, through grace, sound in the faith of our Lord Jesus Christ; to be established in the righteousness which is of God, to maintain the bond of love among each other, and to have our hope in the living God. We will show this both in word and deed, assist each other in the spirit of love, live honestly, study to be meek, quiet, humble, sober, and patient, and thus to testify to others that we have in truth a sound faith, genuine love, and a sure and certain hope." To these principles they have ever remained true. They have manifested their faith by their works, and have diligently maintained scriptural discipline. Their confessions of faith have always magnified the importance of practical Christianity, and in their churches they have required evidence of personal piety, not the mere assent to a creed. In separating from the national church and ordaining a ministry for themselves they sought divine guidance by patient waiting, fasting, and prayer, and last of all by the use of the lot. In 1467 three men were appointed, again by lot, to the ministry, who were ordained first by their own presbyters, in accordance with what they believed had been the practice in apostolic times, and secondly as bishops by Waldensian bishops, that they might also conform to the custom of the churches in the age after the apostles, besides gaining thus a ministry that would be universally acknowledged. After this their numbers increased rapidly in all parts of Bohemia and Moravia. Differences of opinion concerning discipline caused them internal trouble, 1480-94; and grievous persecutions, 1468 and 1508, came upon them from without. The national church united with the Roman Catholics to exterminate them by means of imprisonment, spoliation, torture, and death. But again "the blood of the martyrs was the seed of the church." The persecutions came to an end, and the brethren renewed their numbers and their strength. When the reformation in the 16th c. began, they were in a flourishing condition, having churches in 400 parishes with at least 200,000 members, among whom were included some of high rank and influence. They used their own hymn-book, catechism, confession of faith, and printing-presses for multiplying Bibles and evangelical books. They were therefore truly, as they have been called, "reformers before the reformation." Yet, in full accordance with their character, they hailed the new movement with joy, entering into conference first with Luther, and afterward with the Swiss reformers. This fellowship was helpful to all parties. The doctrinal system of the Moravians was improved, and discipline and union among the reformers were promoted. The brethren established themselves in Poland, 1549, during the persecution inflicted on them by Ferdinand I. Large numbers of them, banished from Bohemia, removed to East Prussia, and thence one of them, George Israel, went to Poland, where he preached with great success. In 1557 the Polish churches were received into the union. Rudolph II., 1609, in compliance with the demands of his barons, granted a charter which secured religious liberty in Bohemia and Moravia. An evangelical consistory was formed at Prague in which the brethren as a legally acknowledged church were represented by one of their bishops. In 1619 the Bohemian revolution caused by the accession of Ferdinand II. changed the face of religious affairs, and

developed into the Thirty-years war, during which Bohemia and Moravia were brought into subjection to Roman Catholic power. In 1621 the king, having put to death many Protestant nobles, began what was called the anti-reformation. Commissioners, aided by Jesuits and soldiers, went through the country to force the people back to the Roman church. Many laid down their lives; 30,000 families left the country, and the rest of the people were driven into an outward subjection. The Moravians, thus banished from their homes, re-appeared in other lands. About 100 new parishes were organized in Prussia, Hungary, and Poland. They had cherished the hope of returning to their own countries at the termination of the war. But at the peace of Westphalia these countries were not restored to the enjoyment of religious liberty. Eight years after that peace, their settlement in Poland was broken up by war between that country and Sweden. The members of their council were scattered, and their parishes were transferred to the Reformed church. For more than half a century their visible organization ceased to exist; only its hidden seed in Bohemia and Moravia remained. But their bishop, Amos Comenius, as if prophetically assured of their future re-appearance, published a new edition of their history, doctrines, and discipline; commended them to the care of the English church, and formed plans for preserving their episcopacy by consecrating clergymen of the Reformed church, with which they had been united in Poland.

II. *The renewed Moravian Church.*—In 1722 some of the "hidden seed" was revealed by the escape of several families from Moravia under the lead of Christian David. By invitation of count Zinzendorf they settled on his domain of Berthelsdorf, in Saxony, and within seven years about 300 others having joined them from Bohemia and Moravia, they built a town which they named Herrnhut, "the watch of the Lord," and which was soon strengthened by the coming of religious men from other parts of Germany. Within this colony the Moravian church was formally renewed by the introduction of the ancient discipline which Comenius had reprinted, and in the consecration of a new bishop by the hands of the two surviving bishops among the clergymen of the Reformed church. While the ancient church thus entered on a new life, as many persons of various views united with it from different parts of Germany, and as count Zinzendorf also had some peculiar opinions, the new development differed somewhat from the old. Count Zinzendorf having become the leading bishop, strove, in rebuilding the church, to interfere as little as possible with the national church, in communion with which he had been born. In carrying out his views he established on the continent of Europe, in Great Britain, and America, strictly Moravian settlements, where the vanity and irreligion of the world were to be shut out, a high standard of spiritual life was to be maintained, and only brethren were to hold real estate. These Moravian settlements were designed to be as leaven throughout Christendom. Among them a merely nominal profession of Christianity was not to be known; but all the inhabitants were to be sincere followers of Christ. This ideal was for a long time kept steadily in view, and with very great success. Besides these exclusive settlements they had in Great Britain and America some churches of a more general character. For a time fanaticism and extravagance threatened great injury to their settlements and churches in Europe; but the timely efforts of Zinzendorf and his helpers were successful in checking the evil. Their salutary influence extended far beyond their own bounds. They contributed greatly to increase John Wesley's power; imparted to Schleiermacher the love to Christ which gave character to his whole life; afforded places of refuge for true Christianity during the prevalence of German rationalism; educated in their schools large numbers of young persons belonging to other denominations; started a great home missionary work; and engaged with pre-eminent zeal in establishing missions in heathen lands. There are still 15 exclusively Moravian settlements on the continent of Europe, and four in Great Britain. In these the members are divided into seven classes called *choirs*: the married, the widowed, the unmarried men, the unmarried women, the boys, the girls, and little children. In each village there is a Brethren's house for the unmarried men, who live together and carry on trades; a Sisters' house, where the unmarried women have their homes and are supplied with work suited to them; and a Widows' home, where all of that class are provided, at moderate cost, with all things needed for their comfort, and where the poorest can live respectably. The spiritual affairs are under the superintendence of the Elders' conference, while financial and municipal matters are managed by the board of overseers. Until lately real estate could be held only by Moravians, but changes in this rule are in progress which will probably result in the entire abolition of the exclusive system.

III. *The Moravian Church in America.*—Moravian emigrants went to Georgia in 1733; but five years afterward, when troubles arose between that colony and Spain, they removed to Pennsylvania, where they built the towns of Bethlehem and Nazareth. These and some smaller settlements adopted the exclusive plan and even communism in labor. "The lands were the property of the church, and the farms and various departments of mechanical industry were stocked by it and worked for its benefit. In return the church provided the inhabitants with all the necessities of life. Those however who had means of their own retained them. There was no common treasury." This system, which was called the "Economy," existed for 20 years, during which time it produced great results. Each member of it was pledged to devote his time and powers in whatever direction they could be best applied for the spread of the gospel. By this means

there went forth a succession of missionaries through the colonies and among the Indians, preaching salvation by Christ, while the work at home of farmers and mechanics provided for their support. Though the Economy was of short duration, the exclusive foreign policy was continued 80 years. But toward the middle of the present century it was gradually modified, and has now been set aside. The *Unitas Fratrum* is divided into three provinces, the German, British, and American, which are independent in local affairs, but form one organization for the control of doctrine, discipline, ritual, and foreign missions. The provincial synods meet at fixed times, and provide for all matters of administration among themselves. At intervals of ten or twelve years the general synod of the whole body is held at Herrnhut in Saxony. It consists of nine delegates from each province, of delegates from the foreign missions, and of certain *ex officio* members. It elects a board of twelve bishops to oversee the whole church in general matters, and to superintend the foreign missions. At the last meeting of the general synod in 1879 the number of members reported from the various provinces was over 30,000, and of missionaries and their children 400. In all the provinces they have about 50 boarding-schools designed for young people not connected with the denomination, and containing annually about 2,500 pupils. The work of foreign missions was commenced almost simultaneously with the building of Herrnhut, and since that time about 2,500 missionaries have been sent out and sustained by the labor of the members remaining at home. At the present time they have missions in 17 provinces distributed over the world.

MORA'WA, river in Austria. See MARCH.

MORA WOOD, a dark timber from a Guiana tree, the *dimorphandra mora*, or *moral excelsa* of the order *leguminosæ*. It is brought to Europe for shipbuilding purpose.

MORAY, EARL OF, See MURRAY, *ante*.

MORAZAN', FRANCISCO, 1799-1842; b. in Honduras, his father being of Corsican descent. At an early age he began to be active in the troubled politics of Central America, and when but 25 years old was made secretary-general of Honduras; and soon after, having shown himself both a good soldier and a keen statesman, he was elected governor of the state. At that time the liberal party was in power, but constant insurrections were incited by the reactionary factions. These factions Morazan met with firm military measures, and in 1829 drove them out from the city of Guatemala, a service rewarded by the congress with the title of "saviour of the republic." From this time until 1832 he was commander-in-chief of the forces and intrusted with extraordinary powers. He used his authority in ridding the country of the curse of monasticism, abolished convents and tithes, and had the boldness to expel the archbishop of the diocese and other church dignitaries. In 1832 he repelled an invasion from Mexico headed by Arce, a former president, and consented to accept the presidency, which up to that time he had refused. But he had underrated the power of the church; the prevalence of the cholera gave the priests a pretense to inflame the minds of their most ignorant devotees, mostly Indians, with preposterous tales of poisoning and the "vengeance of heaven." A general rising took place, Morazan was overpowered, and, in 1840, compelled to flee to Chili. In 1842 he went to Costa Rica and was made governor without opposition. Still adhering to the idea of federation of the states of Central America he soon lost his popularity; again a sudden insurrection was incited and Morazan fell a victim, being court-martialed and shot on Sept. 15, the anniversary of the federation in 1823 of the five independent states.

MORDECAI, ALFRED, b. N. C., 1800; graduated at West Point in 1823, and remained there the two following years as professor of philosophy, and engineering. In 1855 he was sent by the government to the Crimea as a member of the military commission, and his report was published by congress in 1860. Since 1862 he has been assistant engineer of the Mexico and Pacific railroad. He is the author of several technical works, the chief of which is an *Ordnance Manual*.

MORDVINS, a people in e. Russia, between the Oka and Volga rivers. They belong to the Volgaic division of the Finns. Their number is estimated at 400,000. A grammar of their language was published by Ahlquist at St. Petersburg, 1871.

MORE, HENRY, D.D., 1614-87; b. Grantham, Lincolnshire, Eng.; studied at Eton, where beside his regular studies he spent much time in reading the philosophical works of Aristotle and Julius Scaliger; entered Christ college, Cambridge, at the age of 17, and graduated in 1635. During all his college course he devoted himself with great zeal to philosophy, saying to some one, "I immersed myself over head and ears in the study of philosophy, promising a most wonderful happiness to myself in it." He found no rest to his mind in any system, but became more and more perplexed and skeptical, until he came to the writings of Plato and the Platonic writers, and "discovered the long-looked for treasure in the dreamy pages of Marsilius Ficinus, Plotinus and Trismegistus." In 1639 he took the degree of master of arts, and became tutor to several persons of distinction. He declined many important offers in the church, preferring a quiet life at Cambridge and the study of philosophy even to the honors of a bishopric at £1500 a year. He resigned the rectory of Ingoldsby in 1642, declined the mastership of his own college in 1654, and though he accepted a prebend in the church of Gloucester in 1675, he soon resigned it. In 1640 he published *Psychologia or the First part of the Song of the Soul, con-*

taining a *Christiano-Platonical display of life*. This was reprinted in 1647, and with some additional pieces under the title of the *Philosophical Poems*. His next work was *Conjectura Cabalistica*, and the *Philosophiæ Teutonicæ Censura*, at the request of Lady Conway, a noted disciple of William Penn. He secured her friendship, and received from her a legacy of £400, which he devoted to private charity. In 1671 he published *Enchiridion Metaphysicum*, in which he inveighed against Cartesianism. His other principal works are *Enchiridion Ethicæ Metaphysicæ*; *The Mystery of Iniquity*; *A Key to the Revelation*; *An Apology for Descartes*; *The Immortality of the Soul*; *Enthusiasmus Triumphatus*; *The Mystery of Godliness*, which for 20 years had a great sale. £300 were left by an admirer of his works to have some of More's pieces translated into Latin, which led the author to publish all his works in Latin in 3 folio vols. in 1679. His last work *Medela Mundi* he did not live to finish. The greater number of his works appeared in English under the title of *A Collection of several Philosophical Writings*, folio. *The Life of the Learned and Pious Dr. Henry More* was written by the Rev. Richard Ward. Though a mystical philosopher, he was a man of great intellectual power, profound learning, and rare excellence of character. He was one of the first fellows of the royal society, and was a correspondent of Descartes.

MOREAU DE SAINT MÉRY, MÉDÉRIC LOUIS ÉLIE, 1750-1819; b. in the isle of Martinique; educated in Paris; commenced life as an advocate, and not long after returned to his native island to practice his profession, amassed a fortune, and was charged by the French government to prepare a civil code for the French islands, which was published under the title, *Lois et constitutions des colonies françaises de l'Amérique, de 1550 à 1785*. Named president of the electors of Paris in July, 1789; member of the constituent assembly for Martinique in 1790; a refugee to the United States, after the dominance of the Jacobins in Paris; there became a bookseller; was called to Bonaparte's council of state in 1800; administrator of the states of Parma, Plaisance, and Guastalla, in 1802, and there fell into disgrace for lack of energy against a militia revolt. In 1806 he was granted an audience by Napoleon, and said to him: "Sire, I do not ask to be recompensed for my probity, I ask only for its toleration." He became very poor afterward, until 1817, when Louis XVIII. granted him a handsome pension. His published works are *Description de la partie espagnole de Saint Dominique* and *Description de la partie française de Saint Dominique*, both published in Philadelphia in 1796-97-98.

MOREHEAD, JAMES T., 1797-1854; b. Ky.; educated at the Transylvania university, and admitted to the bar. He served a number of terms in the legislature and was elected lieutenant-governor in 1832. He was governor 1834-36, and U. S. senator from Kentucky 1841-47. He published in 1846 a work on *Practice and Proceedings at Law*.

MOREHOUSE, a parish in n. Louisiana, adjoining Arkansas, bounded on the s.e. by the Boeuf Bayou river, on the w. by the Ouachita river, and drained by the Boeuf bayou and Bartholomew bayou; pop. '80, 14,206-14,111 of American birth, 10,662 colored. The surface is undulating, and heavily wooded with oak, pine, cypress, and other trees. The soil is rich; the principal productions are Indian corn, cotton, and sweet-potatoes. Capital, Bastrop.

MORELL, JOHN D., b. England, 1815; studied philosophy, upon which he has written a number of books. His *Historical and Critical View of the Speculative Philosophy of Europe* appeared in 1846; *Philosophy of Religion*, 1849; and *Elements of Psychology*, 1853.

MORELOS Y PARON, JOSÉ MARIA, 1780-1815; b. in New Mexico; curate of a village in Valladolid. The insurrection against Spanish rule was headed by Hidalgo, and to this movement Morelos joined himself in 1810, and received a commission as capt.gen. of the s.w. provinces. His first great exploit was the capture of Acapulco, where a large body of regular troops was surprised and routed by a few hundred insurgents, mostly negroes. This victory was preceded and followed by many gallant and well-planned movements; but when in 1813 he determined on the attack of Valladolid, contrary to the advice of his next in command, Matamoros (q.v.), he undertook a task beyond his strength. There, after a fierce contest, his forces were routed, and after sustaining for some time an unequal struggle, he was captured, tried, and put to death.

MORETO Y CABAÑA, AGUSTIN, 1600-69; b. Spain. Little is known of his life. He wrote many plays, some religious, as *The Most Fortunate Brothers*; or heroic, like *The Brave Justiciary of Castile*; but the majority, "comedies of cloak and sword," in the old Spanish manner. His best drama, *Disdain met with Disdain*, is founded on Lope's *Miracles of Contempt*, and was in its turn imitated by Molière in the *Princesse d'Elide*. The Don Diego of his play of that name has become the Spanish type and synonym for a coxcomb.

MOREY FORGERY, an event of the presidential campaign of 1880, when James A. Garfield, the republican candidate for president, was charged with having written a letter favoring Chinese immigration in the interest of a supply of cheap laborers. The letter, purporting to be addressed to "H. L. Morey, Lynn, Mass.," was made public in a New York paper, Oct. 20, 1880; and on the 22d what purported to be a fac-simile in lithograph or photo-engraving process from the original letter, was published in the same paper. On Oct. 23 Mr. Garfield, in two letters from Ohio, which were promptly made public, denounced the letter to Morey as "a bold forgery both in its language and

sentiment;" and denied that he had ever heard of the existence of such a person as H. L. Morey. The managers of the democratic campaign refused credence to Mr. Garfield's denial, and circulated an immense number of copies of the original "letter," producing a profound impression throughout the country, particularly on the Pacific coast. There is reason to believe that the "letter," now conceded to have been a forgery by some hand undisclosed as yet (Mar., 1881), turned the vote of California in favor of the democratic candidate for the presidency.

MORGAGNI, GIOVANNI BATTISTA, 1682-1771; b. Italy; studied medicine at Bologna, and physics and comparative anatomy at Padua and Venice. In 1706 he published *Adversaria Anatomica*, a treatise of marked originality, and 6 years later he was appointed professor of the theory of physic at Padua. In 1719 he published complete his collection of *Epistolæ Anatomice*, containing his observations for many years. His great work, *De Sedibus et Causis Morborum per Anatomen Indugatis*, which appeared in 1761, is still an authority on pathology. Morgagni was a man of vast learning in other branches, and in medicine he performed much the same service for pathology that Haller did for physiology.

MORGAN, a co. in n. Alabama, s. of the Tennessee river; 720 sq. m.; pop. 12,187—12,082 of American birth. The surface is irregular and mountainous. The soil in most portions is rich, and good crops of Indian corn, cotton, sweet potatoes, and oats are grown. Considerable molasses is made from sorghum. A portion is watered by Flint river. It is on the Memphis and Charleston, and South and North Alabama railroads. Co. seat, Somerville.

MORGAN, a co. in n. central Georgia, drained by the Appalache and Oconee rivers and their branches; 450 sq. m.; pop. '80, 14,034—9,788 colored; intersected by the Georgia railroad. The surface is level or undulating, partly covered with forests and very fertile. Cotton, corn, and sweet potatoes are the staples. Limestone and granite are found; there are several saw-mills and tanneries.

MORGAN, a co. in w. Illinois, s.e. of the Illinois river; 550 sq. m.; pop. '70, 28,463—23,805 of American birth. It is mostly prairie, with occasional small tracts of timber. The soil is deep and rich, and produces immense quantities of corn, the annual production of which amounts to millions of bushels. Wheat and oats are also grown in abundance. There are large numbers of sheep, and wool-growing is cultivated with success. The chief manufacture is carriages; next in importance are agricultural tools, and machinery, flour, harnesses, and furniture. The Wabash, Chicago and Alton, Rock Island, Rockford and Peoria, Pekin and Jacksonville railroads pass through it. Co. seat, Jacksonville.

MORGAN, a co. in central Indiana; 453 sq. m.; pop. '80, 18,899—18,602 of American birth. The surface is level in the n., but more irregular in the south. The soil is rich, and produces immense quantities of Indian corn, besides wheat, oats, tobacco, and potatoes. There are large numbers of cattle, and wool is exported. The White river and Mill and White Lick creeks flow through it. There is a heavy growth of timber. The Indianapolis and Vincennes, and Fairland, Frankland and Martinsville railroads cross it. Co. seat, Martinsville.

MORGAN, a co. in n.e. Kentucky, having a range of the Alleghany mountains for its e. boundary, drained by the Licking river, forming a part of its n.w. border; 330 sq. m.; pop. '80, 8,455—8,451 of American birth, 33 colored. Its surface is rough and hilly, a large proportion covered with forests of beech, cedar, hemlock, laurel, holly, etc. Its mineral products are iron, bituminous coal, alum and copperas, and oil springs appear in some sections. Its valleys are fertile, producing grain, potatoes, tobacco, wool, and dairy products. Some attention is paid to stock raising. Co. seat, West Liberty.

MORGAN, a co. in central Missouri; 600 sq. m.; pop. '80, 10,134—9,399 of American birth. The surface is uneven and hilly, and the soil fertile. The chief products are Indian corn, wheat, and oats. Pork and cattle are also staples. Bituminous coal, lead, and limestone are found. The county is drained by the Osage and Lamine river. There are extensive forests of elm, wild cherry, oak, hickory, and ash. The Missouri Pacific railroad runs along the n. border. Co. seat, Versailles.

MORGAN, a co. in s.e. Ohio, on both sides of the Muskingum river; 360 sq. m.; pop. '80, 20,074—341 foreign. The surface is uneven and diversified. The soil is fertile, and the principal crops are corn, wheat, tobacco, oats, and potatoes. The growing of wool is an important industry. There are extensive deposits of salt. There are a number of flour mills, tanneries, currying shops, salt manufactories, and carriage shops. Co. seat, McConnellsville.

MORGAN, a co. in n.e. Tennessee, watered by Emery and Obie's rivers; 640 sq. m.; pop. '80, 5,156—286 colored. The surface is irregular and mountainous, belonging to the Cumberland table-land. Much of it is covered with a heavy growth of oak, pine, and chestnut. There are extensive deposits of bituminous coal. The staples are Indian corn, oats, grass, tobacco, and butter. It is on the Cincinnati Southern railroad. Co. seat, Wartburg.

MORGAN, a co. in n.e. Utah; 600 sq.m.; pop. '80, 9,266—8,243 of American birth. The surface is irregular and mountainous. The soil is not largely cultivated, but produces some barley and wheat. Gold is found in paying quantities, and coal and iron are known to exist. The Union Pacific railroad passes through it. Co. seat, Morgan.

MORGAN, a co. in West Va., on the Baltimore and Ohio railroad and the Potomac river; 375 sq.m.; pop. '70, 4,315. Large deposits of coal and iron are found within its boundaries. Co. seat, Bath.

MORGAN, CHARLES W., 1790–1853; b. Va.; entered the navy at an early age, and was one of the officers of the ship *Constitution* at the time of the engagement with the men-of-war *Guerrière* and *Java* in 1812, when he rendered such conspicuous service that the legislature of Virginia, in recognition of it, presented to him a sword. From 1841 to 1843 he commanded the Mediterranean squadron. He was a nephew of Daniel Morgan, a brig.gen. in the revolutionary war.

MORGAN, DANIEL, 1737–1802; b. N. J. When 17 years old he emigrated to Virginia, where he worked as a farmer for some years. Next, he shared in the perils of Braddock's expedition against the Indians, probably as a wagoner, and received a wound in his neck and face that greatly disfigured him. It is stated, also, that during this campaign he was unjustly punished by 500 lashes for some fancied indignity to an officer. At the breaking out of the revolution he was given the command of 75 men enlisted in his neighborhood, with whom he rode to Boston, a distance of 600 m., to join the main army, where he was detached in the expedition against Quebec. In the attack on that city he distinguished himself by bravery and courage, but he was finally taken prisoner. After being exchanged he was appointed col. of a Virginia regiment, and further promotion rapidly followed. In 1780 he received a brig.gen.'s commission; was attached to the army in the south; and won the memorable victory at Cowpens over Tarleton, for which congress awarded him a gold medal. Shortly afterwards ill-health obliged him to retire to his farm, and he did not become conspicuous again until the "whisky insurrection" in Pennsylvania in 1794, when he commanded the Virginia militia against it. After this he was a member of congress from Virginia one term. Died at Winchester, Va.

MORGAN, EDWIN DENNISON, b. Mass., 1811. He received a common school education, and when about 17 entered a business firm at Hartford, Conn., and in 1831 became a partner. In 1836 he started a wholesale business in the city of New York, and soon acquired a large fortune. He served as a state senator 1849–53; was afterwards chairman of the republican committee, and in 1859 was elected governor of New York and served two terms, 1859–63. His administration was marked by the introduction of several local reforms, the reduction of the state debt, and improved management of the canals; he also displayed great vigor in assisting the general government at the outbreak of the civil war, and was given the rank of maj.gen. of volunteers. At the end of his term of office he was elected U. S. senator. In 1864 President Lincoln offered him the position of secretary of the treasury, but the honor was declined. Since that time he has remained in New York, conducting his extensive business, but taking great interest in politics. In 1876 he was again the republican candidate for governor, but was defeated by Lucius Robinson. He has presented the sum of \$100,000 to the Union theological seminary, of New York.

MORGAN, GEORGE WASHINGTON, b. Penn., 1820; after serving in the Texan war for independence in 1836, he entered West Point, but left without graduating, and took up the study of law. On the outbreak of the Mexican war, he raised a regiment of Ohio volunteers, attached to the command of gen. Taylor. In 1847 he was made col. in the regular army, and served under gen. Scott in command of the 15th U. S. infantry. For gallantry at Contreras and Churubusco, he was brevetted brig.gen. He was appointed U. S. consul at Marseilles in 1855, and minister to Portugal in 1858. In the war of the rebellion, he commanded divisions in the army of the Ohio and the army of the Tennessee, but resigned, on account of ill health, in 1863. He was a member of congress from Ohio from 1871 to 1875.

MORGAN, SIR HENRY JOHN, about 1635–90; Welsh descent; trained to the sea and for some time served under Mansfield, at whose death he assumed command of a fleet of twelve ships, and as an English buccaneer preyed on the commerce of the West Indies. He carried Portobello by assault, in 1669 retired to Jamaica with a large fortune, but in 1670 again took command of a large fleet and ravaged the coast of Nicaragua. The next year he marched upon the city of Panama, and with less than 1500 men captured and burned the city. Peace having been made, he visited England, was knighted by Charles II., and appointed governor of Jamaica, where he died.

MORGAN, JAMES D., b. Mass. 1810; in boyhood shipped in the *Beverley*, and barely escaped with his life, as the crew mutinied and the ship was burned. The boat in which he escaped reached the South American coast, and Morgan endured many privations and hardships in returning home. He served as captain in the Mexican war; when the rebellion broke out was commissioned lieut.col. of the 7th Illinois volunteers, distinguished himself at New Madrid and Corinth, and in 1862 was made a brig.gen., and served in the Tennessee campaign, afterwards commanding a division of the 14th corps in Sherman's march to the sea.

MORGAN, JOHN H., 1826-64; b. Ala.; settled in the vicinity of Lexington, Ky., in 1830. He was engaged in the war with Mexico, holding a commission of 1st lieut. in Marshall's cavalry, and was present at the battle of Buena Vista. He was afterwards in business in Lexington, manufacturing bagging, but in 1861 attached himself to Buckner's army, being in command of the Lexington rifles, which he afterwards left, and commanded a squadron of cavalry at the battle of Shiloh. He however, left the regular confederate service and engaged in guerrilla warfare on his own account, with a band of adventurers, who made the name of "Morgan's raiders" remembered with terror wherever they appeared. The extraordinary celerity and success of his movements gave him a high and peculiar military reputation, seriously modified by the utterly irregular character of his modes of warfare. Following close after the union armies, he destroyed military stores, burned railroad trains, tore up tracks, demolished bridges, and generally harassed and despoiled the enemy after a fashion of his own. He was even sufficiently enterprising and ingenious to keep a telegraph-operator with him in his movements, by whose aid he was enabled to spread false intelligence concerning them, and also obtain constant information with regard to the attempts which were being made to interfere with his rapid operations. He was finally captured, with nearly his whole command, while making a bold raid through Kentucky, Indiana, and Ohio. He was imprisoned in the Ohio penitentiary, but succeeded in escaping, and fled into Tennessee, where he soon after organized another raid, which proved to be his last. He was betrayed and captured by federal cavalry at a farm-house, where he was stopping, in Greenville, Tenn., and killed while seeking to escape.

MORGAN, LEWIS HENRY, b. N. Y., 1818; educated at Union college, and admitted to the bar. He began the practice of law at Rochester, in 1844, and retired in 1864. He is one of the first authorities on ethnology and anthropology. In 1851 appeared his *League of the Iroquois*, a study of the customs and institutions of the six nations. His investigations were particularly directed to the systems of family relationship prevailing among savage tribes; and in pursuit of his inquiries, he addressed letters to missionaries and U. S. consuls residing in the vicinity of barbarous nations. By this means he collected a large body of information, which is contained in his *Systems of Consanguinity and Affinity of the Human Family*, which was published by the Smithsonian institution in 1870. Some of the theories advanced in this work have met with considerable opposition from students of anthropology; as, for instance, from Mr. McLennan in his well-known book on *Primitive Marriage*. But the value of Mr. Morgan's researches as to facts has been universally recognized. In 1868 he published a work on *The American Beaver*, containing the results of his personal observations near lake Superior. Mr. Morgan has been a member of both branches of the N. Y. legislature.

MORGAN, SIR THOMAS CHARLES, 1783-1843, b. England; educated at Eton and Cambridge. He took a medical degree in 1809, and began the practice of his profession in London. He was knighted in 1811, and soon afterwards established himself in Ireland, where, after giving up his practice, he devoted himself to literature and to the promotion of Roman Catholic emancipation. He published *Sketches of the Philosophy of Life; The Philosophy of Morals*; and with lady Morgan, *The Book Without a Name*.

MORGAN, WILLIAM. See ANTI-MASONS.

MORGAN, WILLIAM F., S.T.D., b. in 1818 at Hartford, Conn.; graduated at Union college, N. Y., and at the Episcopal theological seminary in New York. For more than twenty years he has been rector of St. Thomas's church in New York, holding high place among the clergy of his denomination as a writer and preacher. A collection of his sermons has been published.

MORGENSTERN, CHRISTIAN, 1805-67; b. Germany; studied painting in the school of Bendisen. He afterwards studied at the Copenhagen academy of fine arts, and in 1820 took up his residence in Munich, where his first exhibited picture was "The Heath of Lüneburg." He exhibited a picture on the same subject at Paris many years afterwards. He was a good landscape painter, and also an etcher of merit. His best pictures are studies from the scenery of Heligoland.

MORGUE (*ante*). Morgues have been established in the principal American cities; in New York in 1866, in Boston in 1851, in Brooklyn in 1870, in Chicago in 1872, in St. Louis in 1874.

MORIAH, MOUNT. See JERUSALEM, *ante*.

MORI, the family name of the daimios or feudal princes of the provinces of Suwo and Nagato (or Choshu) in Japan. During the 15th and 16th centuries, the Mori family ruled 11 provinces, but after being humbled by Taiko they held in fief only the provinces of Suwo and Nagato; and as such, were guardians of the straits of Shimonoseki (see SHIMONOSEKI). Nagato was long the seat of Dutch learning, and many students were sent to Europe and America, though under the ban of the Yedo authorities. The Mori family and their retainers were very active in the revolution of 1868, and took the field against the Tycoon, armed with American rifles. Among the many able men from this province were Kido, Hirozawa, Inouye, and other high officials and statesmen. Three cadet families formerly held fiefs under the feudal system. The Mori crest is a transverse bar under which are three balls.

MORI, ARINORI, a Japanese statesman, b. in Satsuma about 1848. He was one of the first natives to escape from Japan and the repressive measures of the tycoon. Reaching England, he spent two years in study, and returning to Japan took a seat in the national legislature, proposing the abolition of the ancient custom of wearing two swords. This measure, though at first angrily condemned, was finally adopted. Mori was the first Japanese ever chosen to fill a permanent diplomatic post abroad. This was at Washington, D. C., as *chargé d'affaires*, in 1871. While here he composed a work on *Life and Resources in America*, which was translated and circulated in Japan. He also collected in a pamphlet the views of leading American educators on the subject of education for Japan, and petitioned his government in an able memorial on behalf of liberty in religious matters. Recalled in 1873, he was soon after sent as minister plenipotentiary to Peking, and assisted to secure the Japanese treaty with Corea, Feb. 27, 1876. In 1879 he was appointed minister plenipotentiary to the court of Great Britain, a post which he still holds. In 1874 he married a Japanese lady of Shidzuoka, according to the western principle of equality of goods and legal status—an innovation of great social influence on the position of woman in Japan. Latterly he has written his name MAURY.

MÓRIER, JAMES, 1780–1848; b. England; traveled extensively in the east, and described his journey in his *Travels through Persia, Armenia, and Asia Minor*. He afterwards resided for six years in Persia, as private secretary to the British minister, and became familiar with the character and customs of the inhabitants—a knowledge which he soon made use of in novels of eastern life. The first and most popular of these, *The Adventures of Hajji Babá*, appeared in 1824. It was followed by *Zohrab*, and *Ayesha, the Maid of Kars*.

MÖR'IKE, EDUARD, b. Würtemberg, 1802; educated at the Stuttgart gymnasium, and Tübingen, where he studied for the ministry. He was for a time settled over a church, but was compelled to leave the ministry on account of ill-health, and became a teacher in Stuttgart. He has published a number of novels and poems, and translations of Theocritus and Anacreon. His *Poems* appeared in 1838; *An Idyll of Lake Constance* in 1846; and *Four Tales* in 1856.

MORILLO, PABLO, 1777–1838; b. Spain; count of Cartagena and marquis of Fuentes; entered the Spanish navy in 1793. During the war carried on by the Spaniards against Napoleon he raised a guerrilla corps, at the head of which he soon acquired reputation and became a lieutenant. In 1815 he was placed in command of 12,000 men and sent to South America to conquer the insurgent provinces of Venezuela and New Granada; but after many alternations of fortune his army was routed and he was recalled. He then joined the court party and was believed to be one of the authors of an insurrection of the guards in July, 1822. After this he went over to the patriots, obtained command of an army corps, changed back again and submitted to the French intervention. His former treason, however, was not pardoned by the restored king, and he died in exile in France.

MORIN, ARTHUR JULES, b. Paris, 1795; educated in the polytechnic school, and in 1839 made professor of industrial mechanics in the *conservatoire des arts et métiers* of Paris. In 1843 he became member of the academy of sciences; in 1850 was appointed to aid in organizing an agricultural institute for France; in 1851 commissioner to the exposition of London; the following year director of the *conservatoire*, which place he retained till 1873; in 1855 was president of the executive committee of the Paris exposition, and in 1862 president of the society of civil engineers. Morin has occupied the unique position of receiving all the military grades up to gen. of division without leaving the duties of his directorship of the conservatory of arts and trades. He was the inventor of a dynamometer-crank by which the force of living motors is measured and the laws of momentum of falling bodies determined. His scientific publications alone form a library, beginning with 1831 and ending with 1871, and have been a fertile source of information to scientists and machinists of all nations.

MORISON, JOHN HOPKINS, b. N. H., 1808; studied at Phillips Exeter academy, and graduated at Harvard college in 1835; was settled over the Unitarian society in New Bedford, Mass., and in 1846 in Milton, where he still preaches. He published *Life of Jeremiah Smith*; *Disquisition and Notes on the Gospel of Matthew*. He is now one of the editors of the *Unitarian Review*, and has been editor of the *Monthly Religious Magazine*; also a frequent contributor to the *Christian Examiner* and other Unitarian journals. He received the degree of D.D. from Harvard college. He is regarded as an evangelical Unitarian.

MORLAKS, the name of a maritime people occupying the coast of Dalmatia on the Adriatic, and a part of Austro-Hungary. They are of the Slavic race; but are a distinct people, mostly sea-faring, and are drawn upon to man the Austrian navy. The territory occupied by them is called Morlaccia, and the strait which separates it from the islands of Pago, Arbe, and Veglia, is known as the strait of Morlaccia.

MORLEY, HENRY, b. England, 1822; educated in Germany and at King's college, London; after which he taught a successful school near Liverpool. In 1847 he published some papers in respect to the public health, which attracted the attention of Charles Dickens, and led to an engagement as assistant editor of *Household Words*, a position

that he retained six years. Then he became one of the editors of the London *Examiner* and a lecturer at King's college. During these years he also published *The Dream of the Lily Bell*, tales and poems; *Surprise in Italy*, poems; *A Defense of Ignorance*; lives of Bernard Palissy, Gerome Cardan, and Henry Cornelius Agrippa; and a collection of his contributions to *Household Words*, under the title of *Gossip and Memoirs of Bartholomew Fair*. Since 1865 he has been professor of English literature in University college, London, and has written a large and a small *History of English Literature*, and edited an edition of *The Spectator*.

MORLEY, JOHN, b. England, 1838; graduated at Oxford in 1859, and during several years afterward edited a journal called the *Literary Gazette*, and contributed to *The Saturday Review*. In 1867 he published an historical study of Edmund Burke, which introduced him to the general public, and shortly afterward he succeeded George Henry Lewes as editor of *The Fortnightly Review*, in which capacity he became well known as a political and religious radical. He contested the borough of Blackburn in 1869 for a seat in parliament, but unsuccessfully. Since then he has published *The Limits of the Historic Method*; *The Struggle for National Education*; *Critical Miscellanies*; and elaborate critical studies of *Voltaire*; *Diderot*; and *Rousseau*.

MORLEY, THOMAS, d. 1604; b. England; graduated at Oxford, and was appointed, after studying music with William Birde, a "gentleman of queen Elizabeth's chapel," in 1592. He was familiar with the works of the Italian composers, and many of his compositions are madrigals and canzonets in the Italian manner. He also wrote a number of anthems. He edited a collection of madrigals by different English composers, one of whom was the father of John Milton, in honor of Elizabeth, who appears in it as Oriana. The title of this book is *The Triumphs of Oriana*. Morley was also the author of a work called *A Plaine and Easy Introduction to Practicall Musicke*.

MORMONS (*ante*). By the death of Brigham Young, which occurred Aug. 29, 1877, the office which he filled fell to John Taylor, an Englishman, though Young's actual position of leader of the Mormons descended to George Q. Cannon, entitled "first counselor" to the president, also an Englishman, a delegate in congress, the Mormon attorney at Washington, and one of the ablest and shrewdest men of the sect. The whole Mormon question has in recent years occasioned considerable uneasiness, both in congress and among the American press and people. The fact that this powerful body is being always increased by the steady influx of foreigners, influenced by a persistent course of proselytism in Europe, has been one reason for this uneasiness, since it results in the erection of an organization of persons alien in birth and sentiment to American institutions, and fostered into a compact body, subordinate to a central leadership, held together by a system combining religious and worldly benefits for the faithful, and in which superstition and entire self-abnegation for the good of "the church" fill important parts. In 1879 the secretary of state of the United States addressed a circular to the U. S. ministers abroad directing them to invite the attention of the governments to which they were severally accredited to the laws of the United States against polygamy. This circular also instructed the ministers to inform these governments as to whatever facts might be in their possession, or which they could obtain from consular agents or otherwise, as to the emigration of Mormons from the different countries; and to request the several governments to enforce existing laws against proselytism and the organization of emigration by the Mormon agents and missionaries. Certain of these governments replied to the diplomatic agents of the United States as to these requests, that it was deemed inexpedient and inconvenient to inquire concerning the religion or place of destination of persons leaving their shores. The circular from the secretary of state also expressed the determination of the government of the United States to enforce the law against polygamy contained in section 5352 of the *Revised Statutes* (the constitutionality of which had been recently sustained by a decision of the supreme court), and to eradicate the institution of Mormonism.

Of the 145,000 people in Utah, about 120,000 are Mormons. But this sect or nation does not alone hold sway in Utah. It has also the balance of power in Idaho and Arizona, and is rapidly populating Washington, Montana, Wyoming, and Colorado. The vote of Idaho, for congressman, at the election of 1880, is alleged to have been carried by an order from George Q. Cannon, directing that all the Mormons in that territory should vote for a certain man whom he named: all the Mormons in Idaho voted accordingly, as a unit. The Mormons are agriculturists, and wherever they go occupy the arable lands for their farms, and the hill-sides for pasturage for their stock. The mines are given up to the Gentiles, who become the patrons of the Mormons for their supplies. Already the Mormons have endeavored to place such a tax on the proceeds of mining in Utah as should render the business unprofitable, and thus remove the only temptation for Gentile settlement. The nature of the people by whom the Mormon territory is being constantly populated by immigration is of a kind to fall readily under the influence of astute leaders: an influence which is assisted by the ignorance and poverty of the immigrants. These immigrants, assisted in leaving a land where they have been forced to live in abject destitution, or by the most arduous labor for the mere necessities of life, find themselves transported to a country rich in vegetables, meat, fruit, and fish; where, among a people industrious, comfortable, and apparently happy, they are easily imbued

with the principles under which these conditions have seemingly been wrought out. The result is subordination to the commands of their leaders; and a confiding belief in the merits of the church and the sect, which is sufficient to render them instruments in the hands of the president and his subordinates. With the death of Brigham Young, the individual leadership of the Mormons ceased. From a statement recently made by the Mormon "bishop" Henry Lunt, of Cedar City, Utah, to a correspondent of the *San Francisco Chronicle*, the following summary of the main features of the organization is condensed: First, there is a president, and he has two counselors. Second, there are twelve apostles. The president is one of them, and each receives a salary of \$1500 per annum; the president, moreover, exercising an authority equal to that of the other eleven. Third, there are seven presidents designated as the presidents of the seventies, each body consisting of seventy elders, there being eighty of these seventies in Utah, each seventy having seven presidents, and each seven one president. The seventies make annual reports, and all of these officials mentioned constitute the general authorities of the church. Next comes the head patriarch of the church, the dignity being hereditary when the candidate is worthy, the incumbent residing at Salt Lake City, and being endowed with the power to bless the people by laying on of hands: the present incumbent is John Smith, nephew of prophet Joseph Smith. There is next a presiding bishop who attends to the collection of tithes: the collection from this source being \$1,000,000 annually. "Zion" is divided into 23 stakes, each of which has a president, and is divided again into wards, and each ward into districts: the district has a quorum of teachers, whose business it is to visit each family periodically, and look after the spiritual welfare of the members. Each district has a meeting-house, Sunday-school, day-school, young men's mutual improvement society, primary association for small children, and usually a dramatic society. At Cedar City there is a co-operative store, a tannery, and a grist-mill. The church organization ends with the priests and deacons. Out of a total population of about 150,000, there are 30,000 children in Utah under eight years of age. There is a Sunday-school organization known as the Deseret Sunday-school union: there is also a perpetual immigration fund.

As to the possible future of the institution of Mormonism it is proper to quote the following statement of Lunt, setting forth the hopes and designs of the Mormons themselves: "Like a grain of mustard was the truth planted in Zion, and it is destined to spread through all the world. Our church has been organized only fifty years, and yet behold its wealth and power. We look forward with perfect confidence to the day when we will hold the reins of the U. S. government. That is our present temporal aim; after that we expect to control the continent." When the newspaper correspondent, to whom this was said, remarked that such a scheme seemed somewhat visionary, considering the fact that Utah cannot secure recognition as a state, the bishop's reply was: "Do not be deceived; we are looking after that. We do not care for these territorial officials sent out to govern us. They are nobodies here. We do not recognize them. Neither do we fear any practical interference by congress. We intend to have Utah recognized as a state. To-day we hold the balance of power in Idaho, we rule Utah absolutely, and in a very short time we will hold the balance of power in Arizona and Wyoming. A few months ago president Snow, of St. George, set out with a band of priests for an extensive tour through Colorado, New Mexico, Wyoming, Montana, Idaho, and Arizona to proselyte. We also expect to send missionaries to some parts of Nevada, and we design to plant colonies in Washington territory. In the past six months we have sent more than 3,000 of our people down through the Sevier valley to settle in Arizona, and the movement still progresses. All this will help build up for us a political power which will, in time, compel the homage of the demagogues of the country. Our vote is solid, and will always remain so. It will be thrown where the most good will be accomplished for the church. Then, in some great political crisis, the two present political parties will bid for our support. Utah will then be admitted as a polygamous state, and the other territories we have peacefully subjugated will be admitted also. We will then hold the balance of power, and will dictate to the country. In time our principles, which are of sacred origin, will spread throughout the United States. We possess the ability to turn the political scale in any particular community we desire. Our people are obedient. When they are called by the church they promptly obey. They sell their houses, lands, and stock, and remove to any part of the country the church may direct them to. You can imagine the results which wisdom may bring about, with the assistance of a church organization such as ours. It is the completest one the world has ever seen. We have another advantage. We are now and shall always be in favor of woman suffrage. The women of Utah vote, and they never desert the colors of the church in a political contest. They vote for the tried friends of the church; and what they do here they will do everywhere; our principles and our institutions spread."

Three years prior to the death of Brigham Young his nineteenth and last wife, Ann Eliza Webb, broke away from Mormonism, and traveled through the United States delivering lectures against the institution, and particularly its polygamous feature. These lectures produced no small impression. Congress has frequently, in recent years, taken cognizance of the condition of Utah and the institution of Mormonism. In 1873 Mr. Frelinghuysen introduced a bill which severely censured the practice of polygamy among the Mormons, and declared that their wives could claim relief by action for

divorce. In 1874 the committee of the house of representatives having the matter in charge reported a bill which was still more sweeping in its character, being destructive of all local authority in Utah, and, in fact, placing the territory in the condition of a province, in its relation to the U. S. government. By this bill the control of affairs in Utah was placed in the hands of federal officials, and its practical application would have been to root out the foundation of the system on which Mormonism depended for its existence. During the same year the case of a contest of the election of George Q. Cannon, as delegate from Utah, came up in the house of representatives, and was decided in his favor. But this decision was accompanied by the passage, by a vote of 127 to 51, of a resolution appointing a committee of investigation into the polygamous relation sustained by delegate Cannon, who, it was alleged, was united by the marriage tie of the Mormon church to four wives. Still later in 1874, what was known as the "Utah judiciary bill," passed the house by a vote of 159 to 25, in the face of a resolute and eloquent defense of Mormon institutions by delegate Cannon. This bill was supposed to comprise "a definite and serious attack at the very foundation of Mormonism." Notwithstanding the action taken by congress on these and other similar bills, no important change has been made in the conduct of affairs in Utah, or in the nature and influence of Mormonism, either as to the increase of the number of its adherents by foreign proselyting and immigration, or by any decline in the spread of its tenets and its power in the territories of the United States.

MORNAY, PHILIPPE DE, Seigneur du Plessis-Marly, 1549-1623; illustrious as a writer and actor during the most direful period of religious intolerance in France. He was son of a Roman Catholic father who destined him for the church, and of a Protestant mother whose opinions he imbibed; becoming according to Voltaire "the most virtuous, and greatest of men." Thoroughly educated in school, and by much travel in youth in Italy and Germany, we find him at the age of 22 at Cologne engaged in theological discussions and writings to inspire the low countries to defy the Spanish power. His address to Coligny, then minister of France, designed to secure that minister's influence for William of Orange, was a marvel of literary power. The minister had already resolved to send Mornay as confidential representative to that prince when the massacre of St. Bartholemew's took place and the young writer barely escaped from Paris with his life. He fled to England, and immediately sought the influence of Elizabeth to avert the further destruction of Protestants in France. He took part with La Noné in an unsuccessful movement of the Huguenots at St. Germain; married an accomplished Protestant lady in 1576, and immediately after joined the army of Condé in France, from which he was called to become a member of the council of Henry of Navarre. By him he was sent to England on a mission; was intercepted by the Spaniards who, ignorant of his mission, permitted him to escape; and finally succeeded in procuring from Elizabeth 80,000 écus for Condé's army. He remained some years in England occupied in strengthening the Protestant cause at the English court, by his writings, and by material aid. In 1584-88 he was member of the two royal political councils of Montauban and La Rochelle, and remained chief counselor of Henry III. until his assassination. He then served Henry IV., and was by him made counselor of state and engaged in delicate negotiations. When the king abjured Protestantism Mornay broke with him, and published an essay on the institution of the eucharist, in which he shows the mass to be condemned by the New Testament and the fathers of the church. It brought upon his head a storm of invective from all sides, but the answers published only served to cause the more universal reading of the heretical tract. Challenged by Du Perron bishop of Evreux, to maintain the truth of some of its statements in open discussion, he accepted, and was caught in a trap carefully prepared to show some of his statements false. This was May 4, 1600. Henry IV. was glad to be sustained in his treachery to old Protestant friends by the apparent defeat of their ablest champion, and Mornay was retired from public life until 1617, when he appeared in an assembly of notables at Rouen, and again in 1620 in efforts to bring conciliation between insurgent Huguenots and the government of Louis XIII., and soon after retired to his chateau to die. By the Catholics he was called the pope of the Huguenots. In controversial writings he was prolific, scholarly, and brilliant.

MORNING GLORY. See *CONVOLVULUS*, *ante*.

MOROCCO LEATHER. See *LEATHER*, *ante*.

MORPHOLOGY, ANIMAL. See *METAMORPHOSIS OF ANIMALS*.

MORPHY, PAUL CHARLES, b. New Orleans, 1822; educated at St. Joseph's college. While still a boy he developed remarkable skill in the game of chess, and soon became enthusiastic concerning it, and devoted most of his time to this amusement, which was to him a serious study. He speedily became so proficient as to defeat with ease the players of his native city, and his remarkable skill began to attract general attention among chess-players throughout the country. In 1857 the first chess congress was organized in New York, and Morphy, being specially invited to attend, played daily at the rooms of the congress, which were crowded by persons interested in chess, who were astonished at his remarkable facility in this difficult game. He defeated with ease such players as Paulsen, Fiske, Maraschke, Lichtenhein, Thompson, Meade, and others, the

leading chess amateurs of the country; and in 1858 made his first public exhibition of those astounding *tours de force*, blindfold games, as to which he had but one equal competitor, Paulsen, who was, however, a far inferior player before the board. In the same year he visited London, where he played with Löwenthal, winning a majority of games. He attended, at Birmingham, the annual meeting of the British chess association, where he played eight games at once without the board, defeating his opponents in six of them. In Paris he played at the celebrated chess resort, the *café de la régence*, and defeated the great French players, Rivière, Laroche, Jowmand, and Devinck; beat Harwitz five games out of seven, losing one and drawing one; and out of eleven games played with Anderson, the German champion, beat seven and drew two. He remained abroad until the spring of 1859, exhibiting his remarkable powers with and without the board, and on his return to the United States, was admitted to the bar of New Orleans, where he has continued to reside, practicing, however, but little. He greatly injured his health by the strain upon his mental faculties, occasioned chiefly by his blindfold playing, and was forced at last to give up chess altogether, and never quite recovered his mental condition.

MORRELL, WILLIAM, b. England; came to Massachusetts bay with captain Robert Gorges, in 1633. He spent a year in the Plymouth colony, and on his return to England published a Latin and English poem, called *Nova Anglia*, suggested by his observations in America. It has been republished by the Massachusetts historical society. Little is known of his life, except that he was a clergyman.

MORRILL, DAVID LAWRENCE, LL.D., 1772-1849, b. N. H.; at first a physician, then a Congregational pastor at Goffstown. In 1807 he resumed the practice of medicine, from which he retired in 1830. He served for a number of terms in the New Hampshire legislature, of which he was chosen speaker in 1816 and in 1823 he was president of the state senate. In 1817 he was elected U. S. senator, and on the expiration of his term, was elected governor.

MORRILL, JUSTIN S., b. Vt., 1810; a merchant, and afterwards a farmer. He was a member of congress from Vermont, from 1855 to 1867. During much of this period he was chairman of the ways and means committee, and had an important part in the economical and financial legislation that came before congress. He is the author of the famous Morrill tariff of 1861, and a strong advocate of protection. He was elected U. S. senator in 1867, and has been twice re-elected.

MORRILL, LOT M., b. Me., 1813; graduated at Waterville college (now Colby university); was admitted to the bar in 1839. In 1854 he was elected a member of the Maine legislature; two years later, president of the state senate, and in 1858-60, governor. From 1861-76 he was a U. S. senator, an office he resigned to accept the appointment of secretary of the treasury, June 21, 1876. After serving until the completion of president Grant's administration, he received the appointment of collector of customs at Portland, Me.

MORRIS, a co. in e. central Kansas; 700 sq.m.; pop. '80, 9,266-8,243 of American birth. The surface is level and generally fertile. Most of it is prairie, and in the w. portion there is little or no timber. It is watered by the Osage river, and numerous small tributaries of the Kansas river. Limestone is found in some parts. The principal productions are Indian corn, wheat, oats, potatoes, hay, and cattle. It is on the Missouri, Kansas, and Texas railroad. Co. seat, Council Grove.

MORRIS, a co. in n. New Jersey, bounded on the n.e. by the Pequannock river, on the e. and s.e. by the Passaic river, and on the n.w. by the Musconetcong; 650 sq.m.; pop. '70, 43,137-34,530 of American birth. The surface is uneven and crossed by a number of ridges, of which one of the highest, Schooley's mountain, is a summer resort. A large portion is heavily wooded with hickory, oak, and chestnut. There are a number of iron mines, and zinc, copper, and manganese are found. Marble, limestone, and sandstone abound. The principal agricultural products are Indian corn, wheat, oats, rye, buckwheat, and potatoes. Large numbers of the inhabitants are employed in the iron mines, and in the manufacture of nails, and rolled and forged iron. Among the other articles manufactured are woolen and cotton goods, carriages and wagons, sashes and blinds, paper, and brick. There are a number of flour-mills, saw-mills, machine-shops, and distilleries. It is on the Morris and Essex railroad, and the Morris canal. Co. seat, Morristown.

MORRIS, a co. in n.e. Texas, s. of the Sulphur Fork of the Red river. The surface is diversified, and heavily timbered with oak, hickory, ash, and cypress. The soil is fertile, but not much cultivated. The county has lately been set off, and has not yet become thickly settled. Co. seat, Daingerfield.

MORRIS, a city and the co. seat of Grundy co., Ill., on the n. bank of the Illinois river, and the Illinois and Michigan canal, and on the Chicago, Rock Island, and Pacific railroad; pop. '70, 3,138. It has a high-school, 2 newspapers, 2 national banks, and 7 churches. St. Angela's academy, for the higher instruction of women, is here, a Roman Catholic institution, established in 1857. The city is the center of a considerable trade in grain. There are mines of bituminous coal, and flouring mills. Agricultural implements and furniture are also made.

MORRIS, CHARLES, 1784-1856; b. Conn.; entered the navy in 1799. He was attached to the American squadron in the war with Tripolis, and was made lieut. in 1807. In the war of 1812 he was first lieut. of the *Constitution*, and was dangerously wounded in the engagement between that frigate and the *Guerriere*, Aug. 19, 1812. Two years later, in command of the *Adams*, he cruised along the coast in search of British merchantmen. He was attacked on the Penobscot river by a superior British force, and was obliged to destroy his ship. He continued in the service for the rest of his life, holding various commands. He was successively chief of the bureau of construction, inspector of ordnance, and from 1851 till his death chief of the ordnance bureau.

MORRIS, EDWARD JOY, b. Philadelphia, 1815; educated at Harvard; elected to the Pennsylvania legislature in 1841. He was a member of congress, 1843-45; and again, 1857-61. He was *chargé d'affaires* at Naples 1850-54, and minister to Turkey 1861-70. He has published a *Tour through Turkey, Greece, Egypt, and Arabia Petrea*; *The Turkish Empire*; and some translations.

MORRIS, GEORGE P., 1802-64; b. Penn.; at an early age he became a journalist in New York city, where in 1823 he established *The Mirror*, a literary weekly that he continued to publish until 1842, when he united with N. P. Willis in publishing *The New Mirror* a year or more, and then *The Evening Mirror*. These publications were the representatives of the best literary, dramatic, and artistic interests of the day, having among their contributors Bryant, Halleck, Poe, Paulding, Leggett, Hoffman, and most of the well-known literary men of New York. In 1845 Mr. Morris originated another journal, *The National Press*, which eventually became *The Home Journal*. It is as a song-writer, however, that he is chiefly remembered; and among the songs which made his name familiar may be mentioned particularly: *Woodman, Spare that Tree*, *My Mother's Bible*, *We were Boys Together*, and *A Long Time Ago*. In 1853 he published *The Deserted Bride, and other Poems*; and also during the same year he edited, with Mr. Willis, *Prose and Poetry of Europe and America*. Another of his successes was a drama, *Brier Cliff*, which was played forty consecutive nights in one of the New York theaters.

MORRIS, GEORGE SYLVESTER, b. Vt., 1840; graduated at Dartmouth college, where he was afterwards tutor. After spending a number of years abroad, in the study of philosophy, he was appointed, in 1870, professor of modern languages, and literature in the university of Michigan. He published a translation of Ueberweg's *History of Philosophy*, in 1871. His *British Thought and Thinkers* appeared in 1880. He is now connected with the Johns-Hopkins university at Baltimore.

MORRIS, GEORGE U., 1830-75; b. Mass.; entered the navy in 1846, and was lieut., in command of the *Cumberland* when she was sunk by the *Merrimack*, Mar. 8, 1862, on which occasion his cool courage gained great praise. He was made a commander in 1866, and placed on the retired list in 1874.

MORRIS, GOUVERNEUR, 1752-1816; b. N. Y.; educated at Columbia, then known as King's, college; studied law, and was admitted to practice in 1771. He was known as a writer of ability while still in his teens; and certain papers by him on finance were highly considered. In 1775 he was sent as a delegate to the provincial congress, and was one of the committee that drafted the constitution for the state of New York. In 1777 he was a member of the continental congress, and of the committee appointed by that body to investigate and report on the condition of Washington's army, then at Valley Forge. He was appointed by Robert Morris, in 1781, assistant superintendent of finance, and held the position for about three years, when he entered into mercantile business. He was sent by Pennsylvania as a delegate to the constitutional convention of 1787, and was appointed one of the committee of five appointed to draft the constitution. In 1791 he was sent by Washington to England on a diplomatic mission; and in the following year was named minister to France, where he remained until 1794, when the French government requested and obtained his recall. In 1800 he was elected to the U. S. senate by the legislature of the state of New York, to fill out an unexpired term. He retired from public life after he had completed the period for which he was elected. He is said to have been an eloquent speaker, and remarkably well informed.

MORRIS, HENRY W., 1806-63, b. N. Y.; entered the navy in 1819, and was made capt. in 1856. He was attached to the African, Brazilian, and Mediterranean squadrons successively, and at the beginning of the rebellion was in Washington superintending the construction of the *Pensacola*. He succeeded in running her by the confederate batteries on the Potomac early in 1862, and reached the federal blockading squadron in the gulf of Mexico. He distinguished himself in the attacks upon forts Jackson and St. Philip at New Orleans, after the capture of which he took the command of the squadron stationed there.

MORRIS, JOHN G., D.D., LL.D., b. Penn., 1803; educated at Dickinson college and Princeton theological seminary. From 1826 to 1859 he was pastor of Lutheran churches in Baltimore. He catalogued the books in the Peabody institute at Baltimore, of which he was the first librarian, and prepared a list of lepidoptera found in the United States for the Smithsonian institution. He has edited the *Lutheran Observer* and other period-

icals, and has written a number of books: *Popular Exposition of the Gospels*; *The Life of Catharine de Bora*; and some translations from the German.

MORRIS, JOHN THOMAS, b. India, 1823; studied at Trinity college, Cambridge, where he became a Roman Catholic. He completed his education in the English college at Rome, and was ordained to the priesthood. After passing three years in the diocese of Northampton he returned to Rome, and became vice-rector of the English college. At the end of three years he went back to England, where he was appointed canon residentiary of the London chapter. He also acted as private secretary to cardinal Wiseman, and his successor, cardinal Manning. In 1867 he became a member of the society of Jesus. He was for a time rector of a Jesuit college in Malta, and is now professor of canon law and church history in St. Beuno's college. He has published a *Life of St. Thomas of Canterbury*; *Condition of Catholics under James I.*; *The Troubles of our Catholic Forefathers*, 3 series; *The Letter-books of Sir Amias Poulet*; and *Cardinal Wiseman's Last Illness*.

MORRIS, L. N., 1800-46; b. New York; grandson of Lewis (signer of the declaration of independence); educated at West Point military academy, graduating in 1820. He was occupied in garrison and frontier duty until the war with Mexico, when he went into active service, and distinguished himself at the battles of Resaca de la Palma and Palo Alto. He was killed at Monterey, being, at the time of his death, a brevet maj. and capt. of the 3d regiment, U. S. infantry.

MORRIS, LEWIS, 1671-1746; b. N. Y.; son of an officer in the army of Oliver Cromwell, who in 1672, settled where Morrisania now is on a farm of 3,000 acres. He ran away from home when a lad, and visited Virginia and the West Indies. Returning he studied law, and at the age of 21 was a judge of the superior court of New Jersey, a member of the council, and afterward member of the assembly. He became chief-justice of New York and New Jersey; state councilor, 1710-38; acting governor, 1731; and governor of New Jersey in 1733, retaining the office until his death.

MORRIS, LEWIS, 1726-98; b. N. Y.; educated at Yale college, where he graduated in 1746. He farmed the family estate at Morrisania, but in 1786 sold it to his brother Gouverneur. He was a member of the provincial congress of 1775; and on the close of the session was dispatched on a mission to gain the adherence of the Indians in the coming struggle. He was again in congress in 1776, and was one of the signers of the declaration of independence. His property was seized by the British, and the family homestead demolished as reprisal for this act. Mr. Morris was a member of the legislature of the state of New York after the organization of the state government.

MORRIS, LEWIS O., d. 1864; son of brevet maj. L. N. Morris; was a second lieutenant in the U. S. army, and served in the war with Mexico. In 1861 he was in command of a battery stationed in Texas, and on the outbreak of hostilities, though summoned to surrender it to the confederates, refused to do so. In 1862 he was appointed col. of the 113th N. Y. volunteers; and shortly after, being stationed at Washington, his command was converted into a heavy artillery regiment, and in the spring of 1864 was attached to the army of the Potomac and participated in all the engagements of the campaign. He commanded a brigade at the battle of Cold Harbor, June 3, 1864, where he was shot at the head of his men.

MORRIS, RICHARD, LL.D., b. England, 1833; educated at St. John's college, Battersea. He became lecturer on the English language and literature in King's college school in 1869, and took holy orders in 1871. Four years later he was made head-master of the royal masonic institution for boys in 1875. He has edited a number of publications for the early English text society, the Chaucer society, and the philological society; and was elected president of the latter in 1874, and is still a member of its council. Besides his editions of early English works, he has published *The Etymology of Local Names*, 1857; *Specimens of Early English*, 1867; *Historical outlines of English Accidence*, 1872; *Elementary Lessons in Historical English Grammar*, 1874; and *Primer of English Grammar*, 1875.

MORRIS, ROBERT, 1734-1806; b. in Lancashire, England; received a common school education only; was brought to this country by his father, and when about 15 years old entered the counting-house of Charles Willing, a Philadelphia merchant, and continued in the firm for many years, gradually rising by his integrity and ability until, in 1754, he was made a partner. When the revolution broke out he had already acquired a very large fortune, and the firm was second to none in the state in the extent of its business. He at once ardently sided with the patriot party, and by assenting to the non-importation act, 1765, sacrificed great trade advantages for sake of principle. In 1775 he was a delegate to the continental congress, and was a signer of the declaration of independence, though he had opposed its adoption as ill-timed. He served for several years on the committee of ways and means, and in that capacity was of immense assistance to the cause not only by his sagacity as a financier, but by his personal credit. More than once he rescued congress from a seemingly fatal crisis by borrowing money on his own name and that of his firm; the \$1,500,000 which enabled Washington to carry out his last campaign against Cornwallis was raised by his exertions and on his own notes. From 1781 to 1784 he was superintendent of finance and was vested with complete control

over the monetary affairs of the country. Here again he several times used his reputation as a man of great wealth to rescue the treasury from embarrassment. The bank of North America was founded in Dec., 1781, with a capital of \$400,000 and was of great use to the government. The looseness of the confederated bond between the states and the general poverty of the people rendered the financial management peculiarly difficult and vexatious; and it was with a sense of relief that, in 1783, Morris resigned his office. Pressed to remain he reluctantly continued his duties until the end of 1784, when a commission was appointed to examine his accounts, and he issued an address, explaining his measures and promising to fulfill all obligations undertaken by him on behalf of the government. In 1786-87 he was influential in procuring the re-establishment of the North American bank, the charter having been repealed. He was a member of the constitutional convention of 1787, and was afterward U. S. senator from Pennsylvania. He was more than once offered the office of secretary of the treasury, but refused and suggested the name of Hamilton. Unfortunate land speculations proved disastrous to his wealth; and on May 7, 1806, the man who had controlled the finances of a rising nation and by his personal exertions saved it from bankruptcy, died in a debtor's prison.

MORRIS, ROBERT HUNTER, d. 1764; son of governor Lewis Morris; was chief-justice of New Jersey, and for 26 years a member of the council. In 1754 he was lieutenant-governor of Pennsylvania, and held the office two years.

MORRIS, STAATS LONG, 1728-1800; b. N. Y.; grandson of governor Lewis. He joined the British army, and in 1756 held the rank of capt.; was made lieut. col. of the 89th Highlanders, and was present at the siege of Pondicherry in India in 1761. He was brig. gen. in 1763; married the duchess of Gordon; was a member of parliament; promoted to maj. gen. in 1777, and to gen. in 1786; in 1797 was appointed governor of Quebec.

MORRIS, THOMAS, 1776-1844, b. Va.; removed in 1800 to Ohio, where he began the practice of law. In 1809 he became an associate justice of the state supreme court. After a service of several terms in both branches of the state legislature, he was elected a member of the U. S. senate. Though a democrat, he did not act with the majority of his party, but was opposed to the extension of slavery, and defended the right of the opponents of slavery to have their petitions considered by congress. His independent attitude estranged his party, and lost him his seat at the next election. In 1844 he was the candidate for vice-president on the "liberty" ticket with James G. Birney. His *Life and Writings* were published by his son, rev. B. F. Morris, in 1855.

MORRIS, THOMAS A., D.D., 1794-1874; b. Kanawha co., Va.; was licensed as a preacher of the Methodist Episcopal church in 1814, and joined the Ohio conference in 1816. His itinerant labors were in Ohio, Kentucky, and Tennessee, until 1834, when he was elected editor of the *Western Christian Advocate* at Cincinnati. In 1836 he was elected bishop. Ill health for several years before his death had withdrawn him from active duty. He published sketches of *Western Methodism* and some sermons. He was distinguished for excellent judgment, and made an able presiding officer.

MORRIS, WILLIAM WALTON, 1801-65; b. N. Y.; educated at West Point. He served, with distinction, through the Seminole war, and was with gen. Taylor in the Mexican war. He was at Palo Alto and Resaca de la Palma, and was made military governor of Puebla, in 1847. He was stationed at fort Kearney, Nebraska, 1853, and was in command of fort McHenry, Baltimore, during the rebellion. He was brevetted maj. gen. the day before his death.

MORRISANIA (*ante*), was annexed to N. Y. co., in 1874. It is a station on the New York and Harlem railroad, and connected with New York by an iron draw-bridge. It contains numerous schools and an academy, 20 churches, a convent, and many fine residences. It has had a rapid growth.

MORRIS ISLAND, situated at the entrance to the harbor of Charleston, S. C., $3\frac{1}{2}$ m. long. It was connected with the very first overt act in the war of the rebellion, a battery at Cumming's Point, the northern end of the island, being concerned in the capture of fort Sumter, April 12-13, 1861. It was made one of the line of defenses of Charleston, fort Wagner and other batteries being erected upon it, and proved to be of great importance to the confederates. Early in July, 1863, the union forces made a descent on the s. extremity of the island and effected a landing; but the efforts immediately made to capture fort Wagner proved unsuccessful. It having been concluded to reduce this important work by regular siege, parallels were opened and approaches made, beginning July 9, with the first parallel. Five parallels were established between that date and Aug. 26; and, with the assistance of the navy, a fierce attack was opened on Sept. 5, under cover of which the approaches were pushed forward, and on Sept. 6 the fort was evacuated. The island was now employed in the siege of Charleston by the union forces, by placing powerful ordnance of long range on the n. end of the island, and using these effectually to throw projectiles into the city, 4 m. distant.

MORRISON, a co. in central Minnesota, bounded on the w. by the Mississippi river, on the n. by the Crow Wing river, drained by the Platte and Swan rivers and other streams: 1175 sq. m.; pop. '70, 1681-1113 of American birth. The surface is largely

prairie, with a heavy growth of timber. The soil is rich, and produces large crops of Indian corn, wheat, oats, grass, and potatoes. Co. seat, Little Falls.

MORRISON, a t. in Illinois, on the Chicago and Northwestern railroad; pop. '70, 2,500. It is pleasantly located on Rock creek, and is the seat of Whiteside co., 124 m. from Chicago and 14 m. e. of Clinton, Iowa. It contains a court-house, 7 churches, a national bank, and 2 weekly newspapers, and derives its importance mainly from the rich agricultural and stock-raising country surrounding it. The leading industries are the manufacture of carriages, wagons, and agricultural implements.

MORRISON, WILLIAM, 1785-1866, b. Canada; was apprenticed to the New York fur company in 1802, and was afterwards admitted as a partner. During the twelve years of his service with the company, he explored a large part of Wisconsin and the northwest, and he is said to have been the first white man to find the source of the Mississippi. From 1815 to 1826 he managed the fur business of John Jacob Astor.

MORRISTOWN (*ante*), a t., the capital of Morris co., N. J., on the Morris and Essex division of the Del., Lack., and Western railroad, 32 m. w. by n. of New York. It was the head-quarters of the American army during the winters of 1776-77 and 1779-80. The traces of an old fort still exist back of the court-house, and the house occupied by Washington, having long remained in the ownership of the Ford family, is now the property of the state, and has been made a depository for many interesting revolutionary relics. The town is built on a plateau which affords beautiful views of the surrounding valleys and hills. As originally laid out there was a common in the center that was called "the green," from which in process of time the grass disappeared. After many fruitless efforts to improve it, a satirical effusion, calling it "an invisible green," led to its being inclosed and adorned. It now contains a monument to the memory of the soldiers who gave their lives to the defense of the union. The town and its environs furnish pleasant summer residences for citizens of New York, and homes for many whose business affairs call them to that city every day. Among the public buildings are a handsome court-house, a public library and lecture hall, churches of different denominations, two of them Presbyterian, the first of which is venerable among the older churches of the land, and the second admirable in the beauty of its modern architecture. In the vicinity is the new state asylum for the insane, having one of the largest and best arranged buildings in the country. Its entire length is 1243 ft., and its greatest depth, from the front of the main center to the rear of the extreme wings, 542 ft. It is built in an ornamental style of architecture, principally of light granite quarried on the spot. It has accommodations for 1000 patients, and its grounds contain more than 400 acres. Its cost was more than two millions of dollars.

MORRISTOWN, a village in e. Tennessee, a junction of the East Tennessee, Virginia, and Georgia railroad, and the Cincinnati, Cumberland Gap, and Charleston; pop. '70, 1000. It is situated on the s. bank of the Holston river, and is the seat of 2 colleges, 1 a female institute. It has public schools, 6 churches, a national bank, 2 weekly newspapers, and 3 hotels. It is in the center of a fertile agricultural district, which contains extensive quarries of variegated marble. The leading industries are the manufacture of flour, and of sashes, doors, and blinds.

MORROW, a co. in central Ohio; 400 sq.m.; pop. '80, 19,073-18,461 of American birth. The surface is undulating, and the soil fertile, producing good crops of Indian corn, oats, wheat, and flax. Other staples are wool and maple-sugar. Much of the surface is covered with forests, and there is an abundance of sugar-maple trees. There are freestone and sandstone quarries. Vernon river, Walnut creek, and the e. fork of the Whetstone river flow through it. It is on the Cleveland, Columbus, Cincinnati, and Indianapolis railroad. Co. seat, Mount Gilcard.

MORROW, JEREMIAH, 1771-1862, b. Penn.; settled in the northwest territory in 1805. He was a member of the convention in 1802 which framed a constitution for the new state of Ohio. He represented that state in the lower house of congress 1803-13, and in the senate 1813-19. He was elected governor in 1822, and served till 1826. Soon afterwards he became commissioner of canals; and 1841-43 he was again in congress.

MORS, the largest island in the Lymfjord, s. of Jutland, in the kingdom of Denmark. 24 m. long, 11 m. broad; pop. 6,000. About two-thirds of the surface is a high table-land, with fertile soil; the remainder comprises bogs and marshes. The chief town is Nykiöbing, on the e. coast of the island.

MORSE, EDWARD SYLVESTER, PH.D., b. Me., 1838; educated at the Lawrence scientific school of Harvard university. In 1859 he became an officer of the Cambridge museum of comparative zoölogy, and in 1867 he was elected by the Boston society of natural history its curator of mollusca. He has been professor of comparative anatomy and zoölogy at Bowdoin college, and lecturer on zoölogy at Harvard. He is an officer of the Peabody academy at Salem, Mass., where he resides. He has written many papers, and delivered lectures on scientific subjects, and has published *An Elementary Text Book of Zoölogy*.

MORSE, JEDIDIAH, D.D., 1761-1826; b. Conn.; graduated at Yale college in 1783; in 1784 published at New Haven a small geography, which was followed by a series of geographies and gazetteers of the United States from materials collected by tra-

veling and correspondence with J. Belknap, historian of New Hampshire, and others. These works were very popular and had a large circulation. They were published in England, and translated into French and German. He entered the ministry in 1785; was tutor in Yale in 1786; pastor of the First Church (Congregational) in Charlestown, Mass. 1789-1820. At the close of his pastorate, having received a commission from Mr. Calhoun, secretary of war, he spent two winters in visiting some Indian tribes, of which a report was published in 1822. He was editor of the *Puritanist* 1806-11, and one of the founders of Andover theological seminary. He published, besides his geographies, *A Compendious History of New England*; *Annals of the American Revolution*; *An Appeal to the Public on the Controversy respecting the Revolution in Harvard College*; and several sermons and addresses. In 1794 he received the degree of D.D. from Edinburgh. Dr. Morse, who was eminent in the New England ministry, was much engaged in religious controversy, maintaining the old evangelical faith in New England against the Unitarians.

MORSE, RICHARD CARY, 1795-1868; son of Jedidiah; b. Charlestown, Mass.; studied at Phillips academy, Andover, and graduated at Yale college in 1812. After graduating, he spent a year in New Haven as an amanuensis in the family of president Dwight; studied theology at Andover seminary; entered the ministry in 1817. Convinced that he was not fitted for the ministry he retired from it, and engaged with his father in the preparation of his geographies; in 1823 he united with his brother Sidney in establishing the *New York Observer*, of which he was associate editor and proprietor during the remainder of his life. He wrote largely for its columns, especially translations from French and German. In 1858 he retired from active life. He died while abroad at Kissingen, Germany.

MORSE, SAMUEL FINLEY BREESE, LL.D. (*ante*). Prof. Morse probably had his interest first awakened in the subject of electro-magnetism, through conversations with prof. J. Freeman Dana, who lectured in New York on that subject in 1826-27, and who was a personal friend. Morse first conceived the idea of the telegraph while on board the packet-ship *Sully*, on his way from Europe to America in 1832, and was led up to the conception by the then recent discovery in France of a method for obtaining the electric spark from the magnet. This fact was established by the testimony of passengers on board the ship, and by his own evidence, and that of drawings made by him at the time. Before the close of the year 1832 a portion of the apparatus which he had devised had been constructed in New York, but it was not until three years later that, in a room in the New York university building, in that city, he showed the telegraph operating with half a mile of wire. In Sept., 1837, he made a public exhibition of his discovery, and in that year filed his caveat at Washington. No tangible result following his appeal to congress for aid during that session, prof. Morse visited Europe with the hope of enlisting the interests of foreign governments in his invention. In this hope he was unsuccessful, and he returned to New York, where, and in Washington, he struggled under serious privations during the four years which elapsed before he obtained congressional aid. And after this aid had been granted, and through the means thus afforded he had succeeded in establishing a working telegraph line, he did not obtain his full reward for the service he had accomplished without tedious and expensive litigation with parties who contested his claims. The number and character of the honors heaped upon prof. Morse on account of his invaluable invention have probably never been equaled in the case of any other American. He received gold medals from Prussia, Austria, and Würtemberg. France conferred upon him, through the emperor Napoleon, the cross of the chevalier of the legion of honor; Denmark made him knight commander of the first class of the Danebrog, and Spain, knight commander of the order of Isabella the Catholic; from Italy he received the cross of the order of Saints Maurice and Lazarus, and from Portugal that of the order of the tower and the sword. Turkey bestowed upon him, at the hands of the Sultan, the decoration of the *Nishan Iftikar*, and Yale college conferred upon him in 1846, the degree of LL.D. Public banquets were given him in London, Paris, and New York, and in June, 1871, a bronze statue of him was unveiled in Central Park.

Prof. Morse set up the first daguerreotype apparatus, and took the first daguerreotypes in America; he also laid the first submarine telegraph line (in New York harbor, in 1842); and from him, in a letter to the secretary of the treasury of the United States in 1843, seems to have come the first suggestion of an Atlantic telegraph. His death occurred about three months after his last public act—the unveiling of the statue of Benjamin Franklin, in Printing-house square, New York.

MORSE, SIDNEY EDWARDS, son of Jedidiah; 1794-1871; b. Charlestown, Mass.; graduated at Yale college in 1811; studied law in Judge Reeve's school at Litchfield, Conn.; established in 1815 the *Boston Recorder*, a weekly religious newspaper, and was for fifteen months its sole editor and proprietor. In 1817, in connection with his brother, he invented and patented the flexible piston pump. In 1820 he published a small geography, and in 1823 a larger one which was a text-book in several American colleges. In 1823 he united with his brother, Richard C., in establishing the *New York Observer*, now the oldest religious newspaper in the state. In 1839, jointly with Henry A. Munson, he produced superior map-prints by a new art which he called cerography. The first application of the art was in the preparation of maps for a school geography written by him-

self, of which 100,000 copies were printed and sold the first year. The process of cerography has not been disclosed. He continued the senior editor and proprietor of the *Observer* until 1858, when he disposed of his interest to the Rev. Dr. S. I. Prime, for many years his associate. Much of his time during the last years of his life was devoted to the invention of the cathometer, for deep-sea soundings, and he was preparing an essay on the subject at the time of his death.

MORTARA, a t. in n. Italy, 25 m. n.e. of Alessandria, and about 40 m. n.w. from the city of Pavia. It is in a fertile agricultural district, in the province of Pavia, on the Arbogna, and until recently was surrounded by fortifications and high walls, which have been removed and their place occupied by elegant villas; pop. '74, 7,408. It is the center of a number of railways and highways which give it some commercial consequence, and it contains military barracks, a theater, and good public schools. From the rice-fields in the vicinity there rises an unwholesome exhalation said to make the atmosphere unhealthy. In 774, when Charlemagne, having invaded Italy, besieged Pavia for eight months, the expedition resulting in the capture of Desiderius, one of the Lombards, and the downfall of their government, this city was the scene of a bloody battle, and was conquered only when its defenders were disabled by pestilence and famine.

MORTGAGE (*ante*). In early times the only way to create a mortgage under the common law was to give livery of seizure of a freehold estate, thus passing the estate to the pledgee and his heirs. Afterwards a peculiar form of mortgage was created as an estate for years, the only right of the mortgageor being to pay the debt on the day specified, and thus clear his land of the obligation. If he failed to do this the estate was lost beyond recovery. The modern doctrine that time is not of the essence of the contract was established by equity courts and is founded on the distinction in Roman law between *hypotheca* and *pignus*; if the property was left in the hands of the mortgageor, the law of *hypotheca* was applied; if given over to the mortgagee, the law of *pignus*. While the common law considered a mortgage as a freehold estate, equity preferred to regard it as a pledge, and, as equity is supreme within its own domain, the entire law relating to the subject has now come under the control of its courts, and the old feudal ideas have given way. Three views then might be taken—that a mortgage is an estate possessing all the common-law incidents except that it is not absolute until foreclosure has been had; that it is a *quasi* interest of the mortgagee in the land without those incidents; or that it is a *pledge* (*hypotheca*) with the right of foreclosure. In every mortgage the estate and the debt or obligation are distinct, and the mortgagee cannot have seizin until the debt is due, though the decisions in some of the states seem to recognize a title before the time set for payment. Whether the assignment of the debt do or do not carry the mortgage with it is also a point on which the laws of the different states are not uniform. A conditional sale is often closely akin to a mortgage. In the latter there is a contract right of the creditor to obtain the land at some time after the non-payment of a debt which is a charge on the land; while in a conditional sale the contract stipulates that the vendor may repurchase at a fixed price; the existence or non-existence of intention to procure a loan or obligation making the distinction. The tendency of courts is to consider such an agreement a mortgage, if there be any doubt. Where there is clearly a conditional sale intended there is no equity of redemption in the vendor after the date specified. This, it will be seen, makes it of great importance to ascertain the true nature of the contract. A recent case on the subject is that of *Bassett vs. Bradley*, reported in the last (1880) volume of the Connecticut reports.

No special form of words is necessary to create a mortgage, if it be clear that the real property is held for payment of the obligation. Wherever the statute of frauds is in force, the mortgage must conform to its provisions. As to construction, parole evidence may be received to prove the existence of a condition, even though the deed seems on its face to be absolute. This, however, is allowed only when the parties have not reduced the whole of their negotiations to the form of a written contract; otherwise the usual rule as to written instruments applies. Though no special form of language must be used, yet the mortgage debt must be so described as to be intelligible to the examination of an interested party. If the obligation of the mortgage be to pay money it is almost always accompanied by a note or bond, but this is not necessary. If the obligation be to perform or not to perform a particular act, a bond should be given. If the note be lost, the loss must be set out in the pleadings, as it is the evidence of the debt which the mortgage is given to secure.

The rights and relations of the mortgageor and mortgagee are governed by the local laws of the states, the only universal rights being that of the mortgageor to pay before foreclosure, and of the mortgagee to hold the property for the debt. The provisions as to registration and foreclosure can be learned only by reference to the statutes of each state. Where the seizin is considered as in the mortgagee, he has the right to enter at any time, and, after entry, is regarded as a tenant in possession, and liable to the mortgageor for rents or profits received. No essential change in the property can be made by the mortgageor without the consent of his mortgagee. After foreclosure the mortgagee either takes the estate or the property is sold under statute regulations to satisfy the debt. He may bring an action for his debt in a court of common law if he choose, but must do so, if at all, within the time set by the statute of limitations. The usual method of fore-

closure is by bringing a bill in equity setting out all the particulars of the mortgage contract and asking that a day be appointed before which the debt must be paid or the foreclosure proceed. Notice must be given to all parties interested. If there be several mortgagees, the court will appoint a day before which the mortgageor must redeem, a subsequent day before which the last mortgageor may assume the mortgage on which foreclosure is asked, and so on up to the mortgagee who brings the petition. If payment be not made, a certificate of foreclosure is issued and recorded. If the mortgage be an absolute one, the foreclosing party acquires full title to the property; but a strict foreclosure is unusual, the law generally providing that the land or other real property shall be sold at auction, and the claims paid in order of precedence, so far as the proceeds will allow. By common law, if the sum realized will not pay the amount of the debt, the mortgagee has no further remedy, but, by the laws of most of the states, the property is appraised, and judgment given by the court of equity for the excess, though sometimes the mortgagee is sent to a court of law for remedy. The mortgagee may refuse to accept payment before the day fixed. A tender of payment on the proper day met by refusal will usually release the mortgageor, but tender after that date is of no avail. The mortgagee may be compelled by law to give a release or quit claim deed after receiving payment, and it should always be required in order to make the record of title clear. Where the mortgagee has had the right of entry, and has applied rents or profits to the payment of the debt, the mortgageor may by a bill in equity be made to account therefor; he is also liable for waste, or any act tending to injure permanently the value of the property. This follows from the doctrine of equity that the seisin has not left the mortgageor. Assessments for public improvements in most states take precedence over mortgage liens. When a mortgaged property is sold it has been held in New York that the vendee does not become responsible for the mortgage debt beyond the value of the land, unless he specially assume the lien; but this is not the case in other states. Where the mortgage and debt are held to be one, they both pass on assignment of mortgage, but elsewhere they are severed. If the mortgage is paid in full by one of two or more mortgageors, the others are compelled to contribute, and equity considers him as an assignee of the whole mortgage.

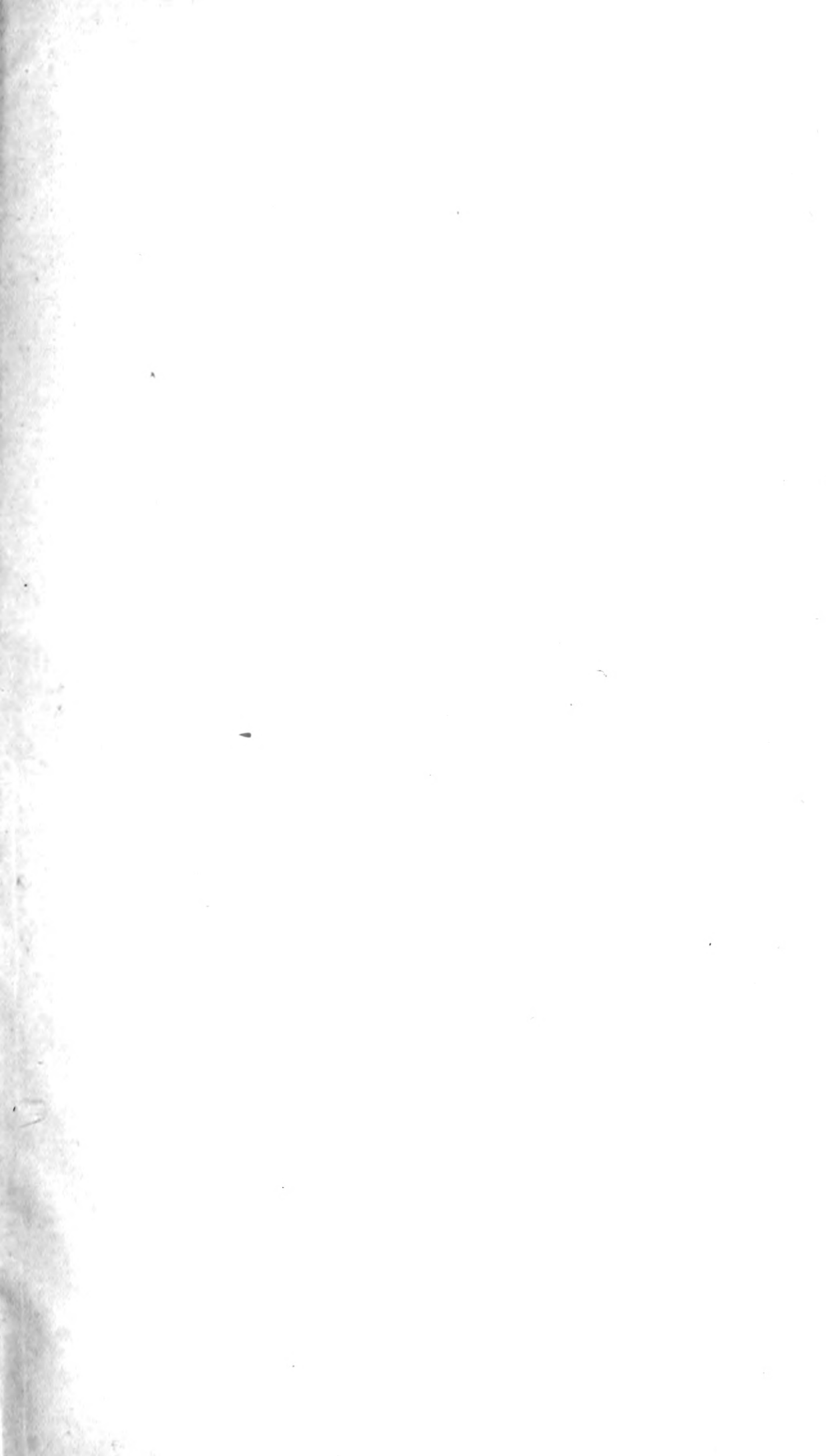
MORTIER, EDOUARD ADOLPHE CASIMIR JOSEPH, Duc de Treviso; 1768—1835; first a soldier under the republic in 1790, adj. gen. in '93, in the battles of Mons, Bruxelles, Louvain, under gen. Kleber in 1794, repulsed the Austrians on the German frontier in 1796 and retook Mayence; gen. of division in 1799, charged by Napoleon with the conquest of Hanover in 1803, made marshal in 1804, head of an army corps in 1805, distinguished for skill in making resistance to an overwhelming force of Russians at Leoben the same year, in 1806 occupying Hanover and making the siege of Stralsund; in 1807 beat the Swedes at Anclam and Friedland; and at the peace of Tilsit June 21, was made governor of Silesia and duke of Treviso. In 1808 in Spain at the siege of Saragossa, and the battles of Ocna and Gebora; in 1809—11, with the French army in the Russian campaign, received the order to blow up the Kremlin, and after the battle of Krasnoë in Nov. 1812 commanded the rear-guard in retreat; arrived at Frankfort-on-the-Main late in 1812 and participated in the bloody battles of Bautzen, Dresden, and Leipsic early in 1813; fought in retreat with Napoleon in 1814, and when the latter was beaten, and at Elba, gave adhesion to the government of Louis XVIII. On the return of Napoleon from Elba joined him, and received command of the eastern department of France. After the hundred days he was reinstated in office by Louis, became member of the chamber of deputies in 1816, and of the chamber of lords in 1819. After the revolution of 1830 he was made ambassador at St. Petersburg, grand chancellor of the legion of honor in 1831, minister of war and president of the council under Louis Philippe in 1834—35, and died by a missile from the infernal machine of Fieschi while engaged in a public review by the king's side.

MORTIMER, ROGER, earl of March, 1287—1330, also baron of Wigmore; for some years a faithful adherent of Edward II. and his representative in Ireland, but in 1320 joined the insurgent barons who were hostile to the favorite, Despencers. In 1322 Mortimer was captured at Boroughbridge and imprisoned in the Tower of London, but escaped to France. There he met and fascinated queen Isabella, wife of Edward, became her paramour, and determined upon the overthrow of the king. With a small force he landed on the English coast and was soon joined by large numbers of the discontented nobles and common people. The king was defeated, taken prisoner and soon assassinated in his dungeon. Mortimer took the title of earl of March and was given confiscated estates of great value. Edward III. was but 14 yrs. old, and though a council held the regency, Mortimer's influence was supreme. He caused the death of Kent and Lancaster, both uncles of the young monarch. The latter resolved to be king in fact as well as name, had the earl of March seized at Nottingham castle and summoned a new parliament. Mortimer was tried on charges of treason; condemned, and in 1330 hung, drawn and quartered near Smithfield.

MORTMAIN (*ante*), the alienation of real estate to a corporation. The term, however, is generally used of religious corporations. In consequence of the feudal restrictions on alienation, a corporation was obliged to get a mortmain license to make a valid purchase of lands. One of the chief objections to the alienation of land to religious corporations,

was the loss to the lord of the fee, of the ordinary feudal profits, such as reliefs, wardships, and marriages, by the vesting of land in a technical person who cannot die or suffer attain. The license of the sovereign was necessary, as the lord to whom, in the last resort, the fee would ultimately revert. If there were an intermediate lord between the alienating tenant and the king, his license must also be obtained for the alienation; for want of of such license, the land was forfeitable to the lord, after entrance. Licenses were necessary in Saxon times, and after the conquest, they are recognized in the constitutions of Clarendon. But the church continued to increase its lands, in spite of the restriction. The estate alienated without a license reverted, in the first instance, to the immediate lord of the fee. To escape this forfeiture, the tenant made a conveyance to the religious corporation, and then held the land as its tenant; the corporation thus obtained a sufficient seizin, to enable them to enter upon the land as immediate lord, under color of a surrender or forfeiture. By the 36th chapter of Magna Charta, such conveyances were made void. The prohibition in Magna Charta applied to religious houses only, so that religious corporations sole were exempt from its provisions; and the religious houses evaded it, by buying in lands that were really holden of themselves as lords of the fee, or by taking long terms for years. To meet these evasions, the statute, 7 Edw. I., *De Religiosis*, was passed.

The restrictive statutes applied to conveyances between the parties only, and the religious houses evaded them by bringing a suit to recover the land on a pretended title, in collusion with the tenant who would let the suit go by default. This kind of collusive suit came afterwards into general use under the name of a *common recovery*. The 2d statute of Westminster enacts a prohibition of this evasion, and the statute *Quia emptores*, permitting free alienation, expressly excepts alienation in mortmain. The next ecclesiastical device was to convey the land to feoffees to the use of the religious houses. The seizin thus remained in the feoffees, who were held by chancery to account for the rents and profits. This was the origin of uses and trusts. The statute 15 Richard II. declares all lands conveyed to the use of ecclesiastical persons, without the license of the king or intermediate lord, to be forfeited. The statute 23 Henry VIII. prohibited the conveyance of land for superstitious uses to non-corporate bodies also. Meanwhile it had always been possible for the crown to grant a mortmain license enabling a corporation to purchase and hold lands. At the time of the revolution, some doubts were felt in regard to the validity of such license, and by the statutes 7 and 8 William III. it was enacted that such license should henceforth be granted by the king, in his discretion. It is held that the before-mentioned statute of Henry VIII. applies to superstitious and not to charitable uses, so that a bequest to a hospital, for instance, was not voided by it. The mortmain acts have not been re-enacted in the United States except in a very few states; a corporation can hold land, but only a charitable corporation can take by devise. In some states the amount which can be bequeathed to charitable uses is limited by statute; within that limit the devise is good.

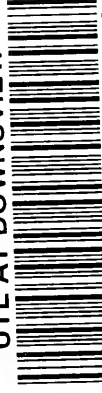


PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

AE Library of universal knowledge
5
L52
Add.
v.3

UTL AT DOWNSVIEW



D RANGE BAY SHLF POS ITEM C
39 16 19 19 06 010 8